THE BUILDER

A Journal for the Architect & Constructor

FEB. 10, 1928 — No. 4436

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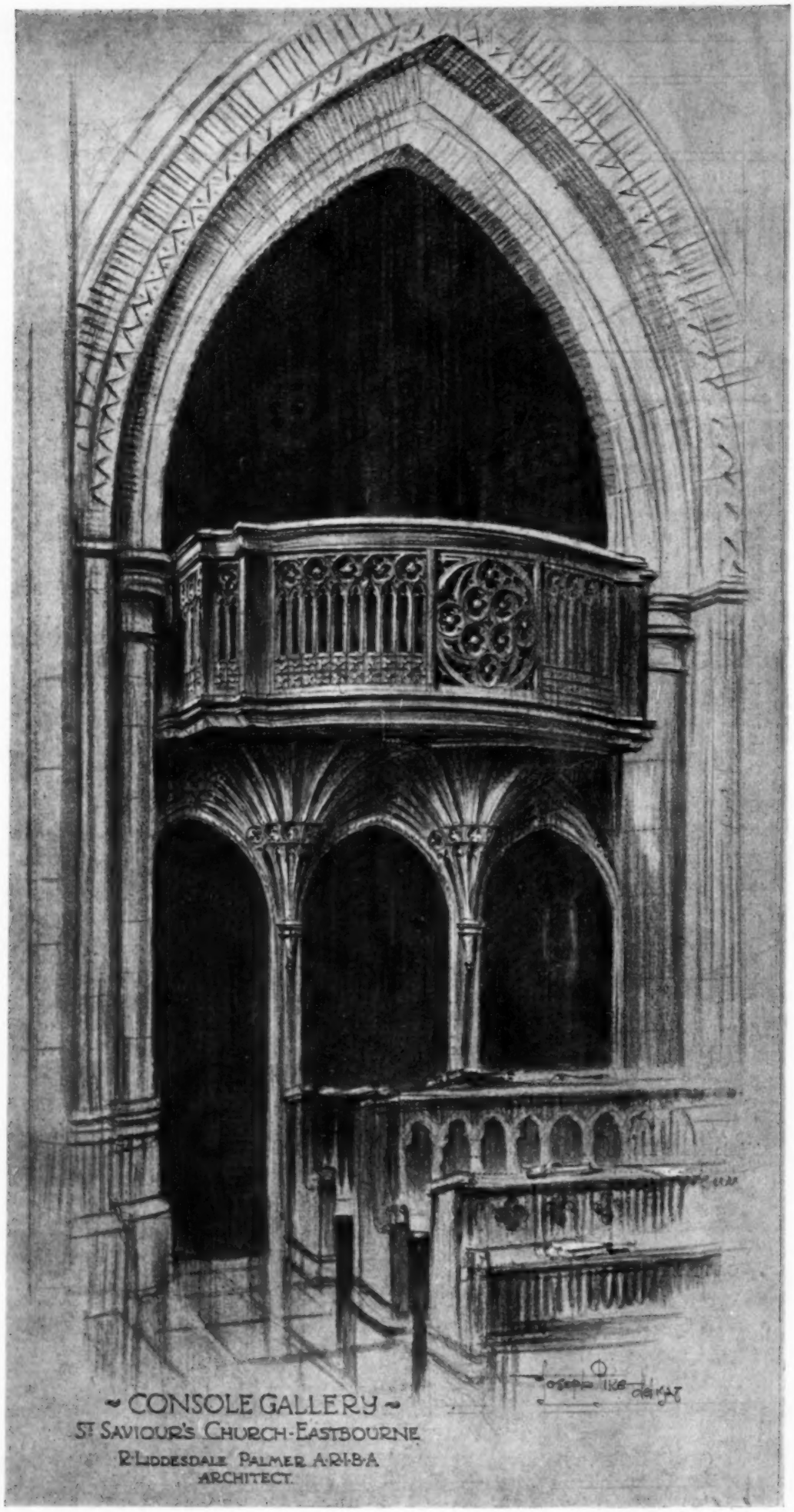
86TH YEAR



St. Saviour's Church, Eastbourne.

Mr. R. Liddesdale Palmer, A.R.I.B.A., Architect.

THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXXIV. No. 4436. FEBRUARY 10, 1928.

ROOFS

IT is no surprise to find that the winning designs in the recent Concrete Houses Competition were both flat-roofed, for this is the obvious way of making the fullest use of concrete in the construction of a domestic building. It would, however, be as foolish to accept the obvious as correct, just because it obtrudes itself, as to rule it out because of its obtrusion. The obvious is an occasion for pause and analysis. It becomes correct only when it has been proved correct. So with this matter of the flat roof.

English tradition has favoured the pitched roof for domestic buildings, almost without exception, and though many a Queen Anne or Georgian street front shows a parapet deliberately designed to mask the roof, we have learned to look for and delight in a fine roof slope, as the usual finish to a comfortable home. The flat-roofed house has, in fact, shocked us not a little. There are some among the extreme modernists who delight not only to shock but to be shocked, but to those who believe that tradition is just an expression of experience, the thing that shocks must prove itself to be the natural next step before they will accept it as inevitable.

The flat roof is therefore up for examination, not as a golden opportunity to break with tradition, but as an experiment in natural building methods. We have to ask ourselves whether it is a simple and cheap form of construction; whether it is a sound form of construction; whether it is as satisfactory a form of construction as that employed where the roof is pitched. The question of appearance is of secondary consideration, and must not influence our decision, for man is so constituted that he craves to introduce the æsthetic into whatever circumstances urge him to create, and in the end he succeeds.

Flat roofs can be constructed in concrete covered with asphalt or similar means, or may be joisted and boarded and covered with felt and asphalt or other plastic material. We believe that the first method is structurally the sounder, but more costly than either the other or ordinary roof construction. The enterprise of the cement manufacturers may overcome the difference in cost in time, but whether they can find a way to make the flat roof so constructed, as good an insulator as the bulk of air in the pitch of a roof, is another matter. The second method is cheaper, but has the disadvantage of calling upon a semi-rigid covering to respond to the appreciable working of timber, and in many cases the crack that results may cause untold harm to the structure before the fault is discovered. Even in this method, there is far less of a "cushion" between the outer air and the topmost room than in the case of a sloping roof, and there is no doubt that it is upon this question of insulation that the success or failure of the flat roof mainly depends.

There are, of course, ways of duplicating the covering as to leave an air cushion between to arrest the transmission of heat from outside to inside or *vice versa*, but this all so adds to the cost that, from an economical point of view, the sloping roof at once comes back into its own.

Then there is the question of snow, to the importance of which the recent weather has drawn our attention in practical, if unwelcome, form. It is not long before the sloping roof clears itself of snow, and becomes affected by no temperature other than that of the atmosphere. This is surely a very valuable characteristic, which the flat roof does not share, since thereon the snow must remain until it has melted away entirely into water, or been shovelled and thrown off. The snow melts partly under the heat of the sun and air, and partly from the heat drawn out of the building, so that the time it is allowed to remain represents so much heat lost out of the building, which must be made good by artificial means, or the temperature within suffers. In all this we cannot fail to perceive the experience which has built up the English tradition for the sloping roof, and if we are inclined to crow over the modernist in the discovery, it is but human nature and a mild counter attack to the superiority which is so frequently paraded before us.

We may go to the lengths of saying that when flat-roof construction of a thoroughly sound and lasting character becomes a really cheap method of construction, and when the science of insulating in good and lasting materials has been developed a little further, then the flat roof will have to be seriously considered as the sensible way of roofing a domestic building. Until then, however, we need be in no particular hurry to discard the methods of our fathers, who knew what they were about and what they had to contend with.

It seems hardly necessary to point out that the above remarks are not intended to throw cold water either upon the promoters of the competition or upon the prizewinners. The competition was designed to explore the manners in which concrete may be applied to the construction of the domestic building. It has never been professed that the promotion of this competition was disinterested, and it does represent an honest and sincere attempt to find out the best ways in which cement concrete may be architecturally applied to a purpose for which until recent years it has rarely been used. The results show that the winners, and indeed many others, have entered into the spirit of the adventure, and have contributed ideas of no little importance.

Accepting the use of concrete as an axiom of the problem set, the competitor would have been indeed foolish to indicate a method of construction involving a considerable use of timber. Such an action might have indicated an heroic stand for a conviction, but a poor solution for the particular problem attacked, and a vain hope as a competitive scheme. The point we would stress is that this valuable competition does not discover a common conclusion ruling domestic architecture as a whole, unless concrete construction becomes the inevitable method of the future.

On this question the President of the Architectural Association, in his recent presidential address, had much to say. There are perhaps few who can accept all he said as irrefutable, but there must be many who were glad to note that someone had the courage to cry "check" to that casual acceptance of fresh methods which threaten to set a deeper mark upon modern architecture than their importance may justify. We have no doubt that the address was purposely provocative, with the idea of promoting lively discussion upon a matter of vital importance. The result appeared to justify the means, and a number of thoughtful speeches and correspondence following the address seemed to indicate that considered opinion regards the science of building to be too great to be swallowed up by a single method, or group of self-related methods.

At any rate, the man who loves the simple old cottage and the dignified refinement of the manor house, and who would wish to build in tune with these, need not fear that the future points definitely towards the type of house which has been evolved out of the flat-roofed idea. It may be that the "box" type of house will arrive naturally, and we need not be dismayed at the prospect, for just as the craftsman made a thing of beauty out of the box that contained the tea, and the box that housed the knives, so will the able architect make a fine thing of the box that houses men.

But until the need arises, architects will continue to study the simple forms which time has mellowed, and the tradition which a common experience has developed, and the new will grow pleasantly out of the old to the enrichment of our times.

NOTES

A Gold Medal.

THE bestowal of a Royal Gold Medal on one who has done some real service to architectural art is an event which comes frequently enough; it would perhaps have more real distinction if it were awarded less frequently. Yet it is a genuine honour and one which is on the whole bestowed with discrimination.

The Gold Medallist-elect.

No one will question the appropriateness of the award this year to Mr. E. Guy Dawber, A.R.A., who has done good service to the profession as honorary secretary to the Royal Institute of British Architects for some seven years, and has filled the office of President, whilst some years ago he was President of the Architectural Association. Mr. Dawber is well enough known to the profession for his marked ability as the creator of many pleasing homes, both large and small, but his other large work in institutional buildings is perhaps less well known. His charming Rochester Almshouses building has quite recently brought into prominence his exceptional gift for carrying forward the charm of old English traditional architecture as to fit it to very efficient modern uses. We could do with more of such agreeable picturesque effects in our London street architecture as is seen in his Insurance offices opposite Marlborough House.

A Wide and Varied Practice.

WE do not think it is realised even by his brother professionals what a wide field of practice has been covered by Mr. Dawber. He has done school buildings and golf houses in various parts of the country. He has done bank buildings in London and the provinces, War Memorials, notably, one in Ely Cathedral; church hall at New Brighton; hospital at Cockermouth; parish halls in various places; restoration of large country houses and, not least notable, the Reptile and Monkey Houses at the Zoo, where he is now making a new entrance. One of his largest works is the Lord Wandsworth Agricultural College at Long Sutton, where a large extent of work is now going on in new hostels, etc. The architect who can carry out so extensive and varied a practice all over the country with so thorough an understanding of the spirit of our old traditions, to which so much of the excellence of his work is due, has obviously qualified for his present distinction.

The Manchester Town Hall and Library.

THE Manchester City Council by a substantial majority has adopted the scheme for building a new Public Reference Library and extension of the Town Hall, for which Mr. Vincent Harris has prepared plans. This resolution, coming after the regrettable indecision that has been rife among some authorities, will be welcomed by the architectural profession as a whole, and in particular by those who have taken part in the competition for extensions of the Manchester College of Technology. This is a "happy ending" which has not always been present in competition matters in the past. The competitions for the Board of Trade Offices and Manchester Art Gallery are among those for which plans have been prepared and premiums paid, yet which have never been carried out.

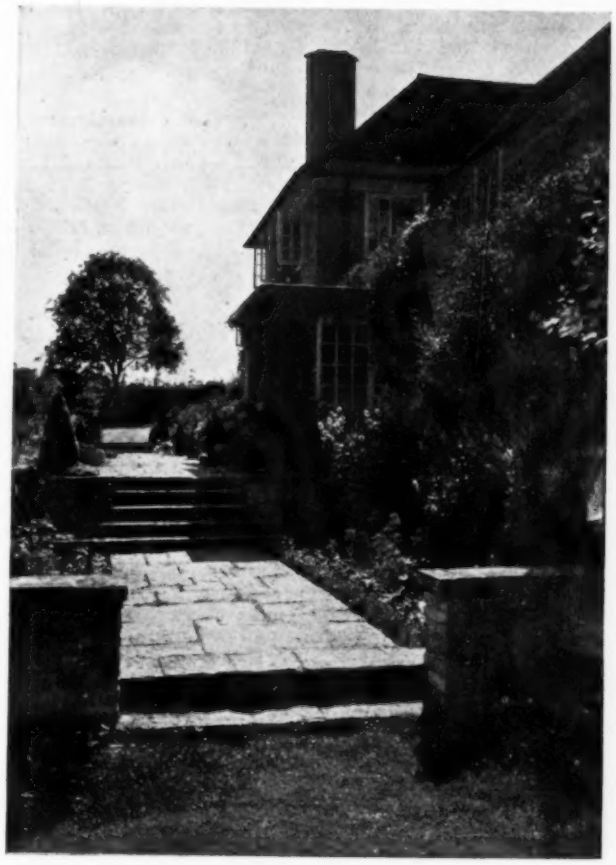
A Great American Building.

THE view we illustrate of the New England Building, Inc., in Boston represents, we are told, the largest floor area of any single building in the world, though it has not so large a cubical content as would have been permitted on the site. That the arrangement of squarely outlined blocks of building with plain square openings and strongly marked vertical lines has seemed to the promoters all that is necessary for such a building we can hardly wonder. The association of the receding surfaces of large bulky masses like this is always impressive. But the time must be approaching when such great condensed masses of business buildings will become almost intolerable. One wonders if this terrible congestion of human beings will not lead at last to a revulsion of public feeling against the intensive culture of the dollar.

The Liverpool Roll of Honour.

ONE of the most remarkable examples of illuminated manuscript which has been executed in our time is the Roll of Honour designed and executed by Mr. George Scruby to the memory of those fallen in the Great War, and which is to be placed in a glazed case on the top of the Cenotaph in the north-eastern transept of the Liverpool Cathedral, which constitutes the Liverpool and District War Memorial. About one-third of the pages of this record are on view at the Walker Galleries in Bond-street, and show with what a happy combination of vigour and delicacy and excellent but restrained colour effects the artist has executed his task. There are about 400 pages, including some 40,000 names; every page is illuminated in gold and colour, and the whole work

The New England Building, Inc., Boston, U.S.A.: Department Store.



Stowell Hill, Templecombe : The Terrace, looking West.
Mr. E. Guy Dawber, A.R.A., P.-P.R.I.B.A

has taken over eight years to complete. A view of the central space of the Cathedral now being erected from Sir Giles G. Scott's design is also being shown at the Walker Galleries.

London Squares.

When the kind - hearted Coram was filled with pity concerning the sad state of many of the neglected children of the London of his day and established the Foundling Hospital for their reception, he little dreamed that the time would come when revenues from the estate bequeathed for their use would be sufficient to enable the Trustees to build a new school in the purer air of the country. Neither did he dream that the utilisation of part of the land would be made the occasion for carrying through a scheme which, as one of its results, will secure the sterilisation as private open spaces of nine of the squares which were either built or to be built as an example of the spacious architectural and planning ideas of the eighteenth century. Yet this has actually happened, and the London County Council has scheduled these squares as private open spaces in their Bloomsbury Town-Planning Scheme—the immediate objects of which are to enable the London University Authorities to re-plan the area on which they propose to build to the north of the British Museum, and to wipe out one or two quite superfluous streets, and to enable the Foundling Hospital Estates Company to carry through developments which will ultimately involve a certain amount of re-planning.

The Amenity of the Squares.

Until the Town-Planning Scheme is considered by public inquiry and otherwise in all its various stages, it will not be possible to say that the complete sterilisation of the land comprised in these squares has been secured. But no doubt need be held concerning the course which the negotiations will follow. On behalf of the Foundling Hospital Estates, Mr. F. J. Wrottesley, K.C., has already agreed to the reservation of Brunswick-square and Mecklenburgh-square as private open spaces. It is to be hoped that the authorities of London University will agree that it is desirable that Torrington-square should also be treated in this way. That the Duke of Bedford will also recognise the wisdom of this course need not be questioned. The amenity of these squares has been the main foundation of the prosperity of the Bloomsbury Estate in time past. Within the memory of many younger men its quietude was preserved by many barriers which gave it almost a park-like amenity. For some time these barriers have disappeared, but the area is still one of residential dignity, even though merchant princes have long since gone to Belgravia. The spaces enclosed will, moreover, still be reserved for the use of residents in the adjoining houses, and will, therefore, be an element of value attached to the site. This is doubtless the ample reason why no question of the payment of public money in the way of compensation will arise. The sites will still remain private property. But henceforward, for all time, these areas will be preserved against building.

Life of the Country.

To those who are real lovers of the country and country life the little illustrated review entitled the "Countryman" will make a strong appeal. The description and illustrations of a Korean bungalow in the current number are interesting, but we do not think they are likely to suggest any practical methods of an economic kind which would be any advance on what we already know. Of course it is a great thing to have warmed floors and walls, but the cost would generally be found just to exceed the limits which are ordinarily imposed. Verandahs and sliding walls are very good things in Korea. The fact is that if we want a warm and durable building we must build in sound and suitable materials, and the reduction of everything down to the lowest possible constructive possibility does not give us a chance to get the best results.

Stowell Hill, Templecombe : Back of Stables and Water Tower.
Mr. E. Guy Dawber, A.R.A., P.-P.R.I.B.A.

GENERAL NEWS

Alloway Kirk.

The "Auld Haunted Kirk" at Alloway, Ayrshire, the scene of Robert Burns's poem, "Tam o' Shanter," will shortly be scheduled for preservation as an ancient monument by the Office of Works.

New Road for Chelsea.

Chelsea Council has approved of a new road to run at the back of Carlyle House in Cheyne-row. The scheme was adopted in place of one for two roads, which would have meant the pulling down of two Queen Anne houses which had been recommended as "ancient monuments worthy of preservation."

Birmingham Civic Centre Competition.

The premiated and commended designs submitted by competitors in the above competition are now on exhibition in the R.I.B.A. Galleries, where they will remain until Saturday, February 18, 1928. The hours for viewing are from 10 a.m. to 8 p.m. (Saturdays 5 p.m.).

New Building Estate, Barking.

An early start is expected to be made with the commencement of building the proposed 420 houses on the Upney estate. The architect is Mr. C. J. Dawson, F.R.I.B.A., Clock House-chambers, Barking.

New Secondary School, Harrogate.

Plans have been approved for the erection of a new secondary school to accommodate 618 pupils, with additional accommodation for special subjects. The estimated cost is £65,500.

Bank Premises, Okehampton.

The Midland Bank, Ltd., 5, Threadneedle-street, E.C.2, are to erect new branch premises in the centre of the town, to the designs of Messrs. Elcock & Sutcliffe, 21, Northumberland-avenue, W.C.2.

A Proposed Sky-scraper, Manchester.

Plans for a new warehouse for the Tootal Broadhurst Lee Company, in Manchester, to have 17 stories and said to be England's tallest sky-scraper, have come before the Corporation Plans Committee. Mr. H. S. Fairhurst, of Manchester, is the architect.

Richmond-hill View.

It is recommended by the London County Council Parks Committee that the Council should contribute one-sixth, or a maximum of £500, towards the deficiency likely to be incurred in connection with the purchase and re-sale of Haversham Grange, Twickenham, which is to be carried out in order to preserve the view of the Thames Valley from Richmond-hill.

Transoceanic Telephony.

Preceding the reading of papers at the ordinary meeting of the Institution of Electrical Engineers to be held on Thursday, February 16, at 6 p.m., a cinematograph film illustrating the new Anglo-American telephone service, entitled "Voices across the Sea," will be exhibited, lasting about 15 minutes.

A Vanished City of Arabia.

An exhibition of an unusual nature will open at the Leicester Galleries, Leicester-square, this month It will consist of pictures of Palestine and Petra, by Mr. David Bomberg, a young artist who has had an adventurous career. Petra, the ancient city of Arabia known as the "rose-red city," is so inaccessible, we learn, that Mr. Bomberg is the only artist to paint there since the visit of David Roberts in the early part of the last century.

R.I.B.A. Statutory Examinations.

The R.I.B.A. Statutory Examinations for the office of District Surveyor under the London Building Acts, or Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on May 2, 3 and 4, and on October 17, 18 and 19, 1928. The closing dates for receiving applications for admission to the examinations, accompanied by the fee of £3 3s., are April 11 and October 1 respectively. Full particulars of the examinations and application forms can be obtained from the Secretary, R.I.B.A.

Southwark Chapel.

It was reported at a meeting of Southwark Borough Council that the London County Council is acquiring the building known as Southwark Chapel and the burial ground adjoining, in Hankey-place, Southwark. Councillor F. C. Rowe informed the borough council that the chapel building was now a billiards hall. The L.C.C., therefore, proposed that the freehold of the site should be acquired by them under Part III of the Housing Act, 1925, with a view to the site of the billiards hall being re-developed by the erection of working-class dwellings, and the disused burial ground, which could not be built upon, being laid out and maintained as an open space. It was intended to let the site of the billiards hall to Church Army Housing, Ltd., on a building lease for the erection of tenement dwellings.

Home Secretary and Petrol Pumps.

The Wareham and Purbeck (Dorset) Rural District Council recently asked the Ministry of Transport to promote legislation to empower councils to refuse the grant of a licence in respect of petrol pumps or stores situated by narrow roads and other places where traffic difficulties were likely to be caused by cars drawing up for supplies. The council have received a reply from the Home Office stating that on the information before him the Secretary of State is not aware that legislation empowering local authorities to refuse to grant licences for the storage of petroleum on the ground of obstruction is necessary, and he is not prepared, as at present advised, to introduce such legislation. The Secretary of State is of opinion that a local authority would not be exceeding their power under section 9 of the Petroleum Act, 1871, if they were to refuse the grant of a licence in circumstances where the installation would clearly be dangerous.

Informal Illustrated Lecture on Architecture for Workers in the Building Trades.

The third of this series of lectures was held by the R.I.B.A. on Wednesday, January 18, 1928, in the R.I.B.A. Galleries, 9, Conduit-street, W.1. Mr. L. Sylvester Sullivan, F.R.I.B.A., again presided, and Mr. Arthur Bolton, F.R.I.B.A., read a most interesting paper, illustrated by lantern slides, on "The Architecture of Robert and James Adam." At the conclusion of the paper a discussion took place, and Mr. Bolton replied to numerous questions put to him by his audience.

Mr. Charles Day.

We regret to record the death of Mr. Charles Day, of Nunhead, on Thursday, January 19. Mr. Day will be well known to many by reason of his long connection as an engineer in the service of Waygood-Otis, Ltd., in the manufacture and installation of their lifts. He was connected with that company for nearly 50 years, having entered the service of R. Waygood and Co. in 1871, and he retired about seven years ago. His father, the late Mr. J. M. Day, together with Mr. Henry C. Walker, the present chairman of the company, and the late Mr. W. R. Green, purchased the business in 1875 from Mr. Richard Waygood, who founded it in 1833, and it was carried on by them for 12 years. Mr. Charles Day became a partner in 1887 and afterwards a director with the other partners, when the business was formed into a limited liability company. Mr. Day was of a genial and generous disposition, was esteemed by all, and will be widely missed.

Incorporated Church Building Society.

At a meeting of this Society, held at 7, Queen Anne's Gate, Westminster, on Thursday, January 19th (Mr. Athelstan Riley, F.S.A., in the chair), grants were made towards building new churches at:—Llandudno Junction, Holy Trinity, £200; Stafford, St. John, £250; Tumble, St. David (Carms.), £150.

Towards enlarging, reseating, or repairing the churches at:—Banwell, St. Andrew, £50; Camel, West, All Saints', £10; Hayscastle, St. Mary, £35; Melbury Abbas, St. Thomas, 15; Milton, St. Mary Magdalene, £100; Newington, All Souls, £50; Stainfield, St. Andrew, £40; Sutton-on-Derwent, St. Michael, £40; Wensley, Holy Trinity, £60; Winscombe, St. James-the-Great, £60.

Grants were made from the Mission Buildings Fund towards churches at:—Holland, Little, St. Bartholomew, £50; Norbury, St. Oswald, £80; Shiney Row, St. Oswald, £75.

The following grants were also paid for works completed at:—Brixton, St. John the Evangelist, £100; Chellaston, St. Peter, £50; Grays Thurrock, All Saints, £300; Grimscar, St. Cuthbert, £50; Markham, St. John, £150; Monks Risborough, St. Dunstan, £25; Myddfai, St. Michael, £50; Ogwell, West, £40; Othery, St. Michael, £20; Stamford, St. George, £40; Stanwick, St. Lawrence, £15; Wolvercote, St. Peter, £30.

In addition to the above, the sum of £970 was paid towards repairs to 40 churches from Trust Funds held by the Society.

Colonies for Consumptives.

In the course of an address before the Royal College of Physicians on Village Settlements for Consumptives, Dr. P. C. Varrier-Jones, Medical Director of the Papworth (Cambridgeshire) Village Settlement, summarised the results and benefits of that institution as follows:—(1) a complete absence, during eleven years, of clinical tuberculosis in the 133 children of men and women who are definite cases of the disease, and in most instances show tubercle in sputum from time to time; (2) a village community maintained by the work of the industries; (3) a total of £72,000 paid in wages to the settlers since 1918; (4) an aggregate of sales of goods produced by the settlers amounting to £177,543 during that time; (5) the arrest of the disease process to such an extent as to justify an expectation of life three times as long as that usually given in sanatorium statistics; (6) the removal of a number of chronic infective cases from the homes and workshops of the general community.

RELIGION AND ARCHITECTURE

SIR BANISTER FLETCHER, F.S.A., F.R.I.B.A., in his second lecture on "English Mediæval Architecture" at the Central School of Arts and Crafts, outlined the development of the planning of churches and cathedrals. The plans of cathedrals were elaborated by reason of ritual exigencies, such as the necessity of providing pilgrims' paths to holy relics in shrines, like that of Thomas à Becket in Canterbury Cathedral and Edward the Confessor in Westminster Abbey. Veneration of the Blessed Virgin required Lady Chapels, and masses for the dead led to the endowment of chantry chapels by noble families where departed members were perpetually honoured. Thus the Gothic period of the thirteenth, fourteenth and fifteenth centuries was marked, in spite of unsettled conditions, by religious enthusiasm shown in the zeal of Crusaders or the patient tramp of pilgrims.

The lecturer also dealt with the scientific growth of vaulting, or arched stone ceilings, which began with the Roman solid barrel and cross vaults and developed into the rib and panel type of Gothic architecture, the ribs gradually increasing for the support of the intervening panel and culminating in the fan and pendant vaults in the fifteenth century. These caused downward and outward pressures, the latter of which had to be counteracted by buttresses and flying buttresses weighted by pinnacles. The lecture was illustrated by lantern slides and a series of models of vaults.

THE NEW FORM OF BUILDING CONTRACT

IV.—A DETAILED CONSIDERATION—(*Continued*).

BY E. J. RIMMER, B.Sc., A.M.Inst.C.E., Barrister-at-Law.

WE have now considered under this heading "The Status of the Architect," "The Contract Works," "Delays," and "Certificates."

Damage to Persons and Property.

The 1909 form purported to place upon the Contractor the whole of the responsibility for damage which might arise to adjoining property due to the works under construction being carried out, and although the clause was not very definite there was at least an arguable case for the claim that even though the contractor were to carry out the work in all respects to the directions of the architect or structural engineer employed by the employer and without negligence on his part, he was, notwithstanding, responsible for such damage. The extent of structural damage which might result from building works in course of execution, such as underpinning, is, of course, unlimited when the works under construction are carried out in an area covered by large and extensive buildings. Several recent cases of serious damages suffered by buildings in the vicinity of pile-driving or underpinning operations illustrate the class of case that requires consideration by parties to a building contract in this connection.

In view of the varying extent to which damage to property might involve the contractor, and also the varying causes by which such damage might be brought about, the whole question of damage to adjoining property has been reviewed and modified under the new form of contract. It may be said that, as in the case of delays, damage to property may be classified under separate heads. In the first place there is damage to property due to improper workmanship, negligence of workmen, defective plant, etc. In the second place, damage to property may result from the nature of the operations carried out, as, for example, by vibration from pile-driving. In the third place, damage to property may result from negligence on the part of the architect or the structural engineer who is engaged by the employer to design the means by which the work shall be carried out, and who puts forward an unsatisfactory design; and in the fourth place, damage to property may result from the unknown factor in all deep foundation work where, although the architect has designed a perfectly satisfactory form of underpinning and the contractor has carried out such underpinning in a perfectly satisfactory manner, some unforeseen and entirely fortuitous condition occurs causing collapse and damage.

The 1909 provisions made no distinction whatever between such causes of damage, but purported to place the responsibility for them all upon the contractor. Of course there could be no justification for the contractor being relieved of his negligence, but on the other hand there does not appear to be any justification for the contractor being made responsible for damage resulting from an insufficient and unsatisfactory design of the work which, by the contract, he is required to carry out. The matters upon which there is more difficulty in assigning liability are those of the second and fourth categories, viz., those in which the very nature of the work may result in damage to property and those due to entirely unexpected conditions. The new form of contract, in effect, places upon the employer the responsibility of determining the sum the contractor should provide for covering either of these two classes of damage. It does not leave, as in the 1909 form, the matter at large, but expressly provides that if the contractor is to cover such risks as well as the risk of the design of the work he must be told (by the inclusion of an item in the bill of quantities) to what amount the cover is to be given and thereby have his liability limited. This appears a fair solution of a difficult question, and when it is realised that the contractor may be called upon to the same limited extent to cover the damage due to negligent or insufficient design it cannot be said that the form errs on the side of generosity to the contractor.

The precise terms of this special proviso are that "if injury or damage arise out of the *proper execution of the contract* works the contractor shall indemnify the employer against the same to the amount, if any, provided in the bills of quantities (or if none in the specification) and/or shall effect a policy against the same in the employer's name with insurers approved by the architect and that save as so provided the contractor shall not be liable for and shall be indemnified by the employer against injuries and damage arising out of the proper execution of the contract works."

The position in regard to injury to persons remains the same under the new form as under the 1909 form, the contractor indemnifying the employer against any liability, loss, claims or proceedings in respect of personal injuries to or death of any person whomsoever arising out of or in the course of or caused by the execution of the contract works.

Prime Cost and Provisional Sums.

The position in regard to specialists and merchants nominated or selected by the architect and the supply by them of goods or the undertaking by them of work as sub-contractors for the contractor, has been much more clearly and definitely expressed in the new form than in that of the 1909 form. The 1909 form was seriously deficient in the manner in which it dealt with the subject. It is understood that the new form, so far as it applies to the payment to the sub-contractor for fixing, attendance upon, cutting away and making good for sub-contractors, for packing, carriage, delivery and return of empty cases, is entirely consistent with the present practice in this respect, but the express provisions will prevent doubts and differences which so often arise in regard to these matters.

In so far as the contract deals with the terms under which the contractor should be required to enter into a contract with sub-contractors nominated or selected by the architect, the new form is again more explicit than the old, though only in one respect does it differ in substance. The old form provided that a sub-contractor should not be employed upon the works who will not enter into a sub-contract "upon terms and conditions consistent with those in the main contract." The new form expands this provision somewhat and makes it clear what terms the contractor should be entitled to impose upon the sub-contractor consistent with the main contract. The first is that the sub-contractor should indemnify the contractor against the same obligations in respect of the sub-contract as the contractor has in regard to the main contract. This provision is, of course, essential in the interests of the contractor, as under the main contract he takes responsibility for the sub-contractor carrying out his obligations. The same remarks apply to the second provision, which is to the effect that the sub-contractor shall indemnify the contractor against claims for negligence of the sub-contractor, his servants or agents, or any misuse by him or them of any scaffolding or other plant employed by the contractor or under any Workmen's Compensation Act in force. The third provision is that no money shall become due from the contractor to the nominated sub-contractor until the architect has issued to the contractor a certificate under his contract, including the work done under the sub-contract, and the same has been paid. It is, however, added (and this is the essentially new provision) that if the architect desires to secure payment to any nominated sub-contractor before final payment is due to the contractor, he may include in a certificate to the contractor an amount to cover the payment, whereupon the contractor shall pay the sub-contractor and be discharged from liability for the sub-contractor's work, while the limit of retention money shall be reduced proportionately. In order to appreciate the importance of these clauses, one has to remember that a sub-contractor nominated by the architect may be engaged for the provision of work or special goods at an early stage in the contract (*e.g.*, special window frames, or special reinforcement process in the basement), and that it would, therefore, be unlikely that a sub-contractor would be willing to await final payment of his accounts until the contractor had received his.

At the same time, the contractor should not be called upon to pay the sub-contractor, and relieve him from all liability for his obligations, before he himself is paid and released from the obligations in regard to the sub-contract work. The provisions of the clause, as indicated, have adequately protected the contractor in this respect, and at the same time have made provision for the payment of the sub-contractor before final payment to the contractor in cases where the necessity for the same arises. A clause expresses in very precise terms that when the sub-contractor has entered into a contract containing the provisions enumerated, the contractor shall be liable in all respects to make good defective work or materials supplied by such sub-contractor. This provision is more definite than the provision in the 1909 contract, but only applies if the contractor has the protection of a sub-contract containing the provisions referred to.

(*To be continued.*)

An Easter Vacation School.

Under the auspices of the University of London, University College, School of Librarianship, an Easter Vacation School will be held at the University of Rome from Monday, April 2, to Saturday, April 14. A course of lectures includes one by Mr. Martin Shaw Briggs, F.R.I.B.A., on "Architecture of Rome (Ancient, Early Christian, and Mediæval, Renaissance and Baroque)."

Prof. A. E. Gardner, Litt.D., will lecture at University College, London, on Monday, March 5, at 5 p.m., on "Greek Sculpture in Rome," and on Monday, March 19, at 5 p.m., on "Roman Historical Sculpture." Professor A. E. Richardson, F.R.I.B.A., Mr. Arthur Stratton, F.R.I.B.A., and Mr. H. Corfiato, S.A.D.G., will give half-hour talks with lantern slides on "The Architecture of Rome," on Mondays, March 5, 12, and 19, at 4.30 p.m.

Boston "Stump."

Sir Charles Nicholson, reporting on the condition of Boston "Stump" (St. Botolph's Church, Boston, Lincolnshire), which it is proposed to restore at a cost of £30,000, says that the principal defects in the tower are cracks on the north and south sides. He recommends the insertion of three reinforced concrete girders at different stages, the use of iron rods and grouting, and the painting of the whole tower with mastic cement. With regard to the nave roof, he says: "A good deal of timber is eaten away by beetles. In my opinion it would be possible to put the roof into good order by renewing certain defective portions and spraying the timbers with preservative. The vaulting is unsafe and should be taken down and replaced with a flat or nearly flat oak ceiling, as this was undoubtedly the intention of the builders of the nave."

Chair Used in the Trial of Charles I.

In a Cottage Hospital at Moreton-in-the-Marsh, Gloucestershire, there has been found a chair which figured in the trial of Charles I. at Westminster. Arrangements have been made for its transfer to the Woodwork and Furniture Section of the Victoria and Albert Museum, South Kensington.

CORRESPONDENCE

Preservation of St. Paul's Cathedral.

[We have received, too late for inclusion in this issue, a reply from Mr. William Harvey to "Inquisitive's" letter on this subject, given last week. We propose, therefore, to publish it in our next issue—ED.]

The New Form of Building Contract.

Sir,—It has occurred to me that one of the most important alterations in the new Form of Contract is in respect of the setting out of works. I wonder whether Mr. Rimmer will deal with this in his articles on the subject.

Under the old form, the contractor was responsible to set out the *whole* of the works, and this I have always taken to mean, not only the building on the site, but also all work in all trades which requires to be set out.

Under the new clause, the setting out by the contractor appears to be limited to setting out all main building lines and boundaries, and the architect is responsible to check this within five days after being notified by the contractor that the setting out has been done, and thereafter he becomes responsible for such setting out. There appears to be no obligation on the contractor to do the remainder of the setting out required in all trades during progress. How and by whom is this to be done?

C. STANLEY PEACH.

Articled Pupilage versus the Schools.

Sir,—This question has been very exhaustively threshed out by "Positive" and "Negative"—the latter being as positive that his views are right as the former is convinced in the negative. Each backs his own horse, so to speak. As in nearly every architectural discussion it is not easy to tell whether the greatest good of architecture or that of the practitioner is being argued. I think we may at last concede that the two systems under consideration are both right so far as they go.

To begin with, the body of gentlemen who banded together to form the R.I.B.A. in 1827 cannot have sat at the feet of the scholastic Gamaliels of to-day, and I will even go so far as to assert that few, if any of them, would have gained distinction in the R.I.B.A. or University examinations as now set. Yet some of these men and many of their predecessors erected buildings which students of to-day are advised to measure and study. In the hundred years that have elapsed since the R.I.B.A. was founded so many new methods and materials have been discovered that to be a thoroughly up-to-date and scientific constructional architect a student must have access to more extended opportunities for study than can be provided by any practising architect. This is the more important as only a few can afford to specialise, and in theory the student should train so as to have a good general working knowledge of every class of building before he can hope to succeed in general practice, besides acquiring a sound knowledge of detail in construction and design, combined with the ability to specify lucidly what cannot be shown on drawings and to supervise efficiently work in course of construction to ensure that the terms of a contract are being carried out.

No one can pretend that any student reaches such a standard in five years, whether trained in an office or in a school of architecture, but the school holds the advantage over the office inasmuch that its students, on the satisfactory completion of their course, *ipso facto* are credited with having passed the R.I.B.A. Intermediate Examination.

The training of the articled pupil is the opposite of academic. Directly he starts his apprenticeship, every hour of his day is lived in an atmosphere of practical work, and before a twelvemonth has elapsed, according to his ability and zeal, elementary technicalities are mastered and a solid foundation on the business side of his profession is laid. The years that follow yield experience according to the description of practice of his principal, but in every case he has the chance of acquiring a knowledge of work in progress and the tactful handling of clients and builders which is invaluable in after years and which no school of technical training can give.

Provided that the student has sufficient "will to succeed" to supplement his office training by private study, and takes advantage—if in London or other large towns—of the excellent night classes specially arranged for such students, I am inclined to think that he should not only be as efficient academically but without doubt more practically efficient than a student trained for an equal number of years in any of the schools.

I am comparing, of course, two students of equal average intelligence and preliminary school training, and assume that both are equally ambitious to succeed.

The architectural schools, if I may say so, can boast all—or nearly all—of the advantages of mass production, and it cannot be expected that they should escape the defects. They are highly systematised, and successive batches of students pass through subjected to identical instruction, with similar problems and solutions based on common formulæ. That the finished article does not in each case reproduce exactly his fellow-student and faithfully mirror the æsthetic taste and method of expression of his teachers is due to the human element, and the difference is one of degree rather than of quality.

An informed critic can tell at a glance by the rendering of a drawing in what school a student graduated. This may, of course, be regarded and valued as a hall-mark or be condemned as a sign of imperfect self-expression. It at least supports the charge of glutting the market that "Positive" complains about. The articled pupil escapes this danger, and though often bound to confess his production is a poor thing, can usually add "but it's my own."

Then we come to the question of studio work, where a large number of students have the opportunity of considering each other's work and comparing notes. It is all very jolly, but it has the tendency to make the exceptionally bright and quick students too self-satisfied, the mediocre hesitant, and the shy and diffident hopeless.

As for the architectural genius, he would do equally well whether trained in an office or a school, though probably if he is to retain his originality he would do better in an office. Another great difference between the office training and that of the schools is that in the first beautiful drawings are of secondary importance. In the schools the drawing of a design and the knack of presenting it on paper in a highly attractive form is taught and practised to a degree which not only is unnecessary but more often than not highly misleading, and sometimes results in great disappointment.

Summarised, my views are: (1) That neither office training nor school training alone is sufficient; (2) the choice of one or the other depends on the mentality, means and disposition of the student; (3) that a student may pass any number of examinations, and yet be a complete failure as an architect—and vice versa; (4) that first and foremost an architect should think and move in the present with a full appreciation of modern needs and modes of expression; (5) that for the good of architecture, the architect should also be trained in æsthetics, but he need neither be an antiquarian nor a painter. His material is brick, stone and timber, and his canvas the sky and the open country; (6) no combination of letters after an architect's name will ever be an index to ability. In the British Isles to-day there are many thousand practitioners so distinguished; how many buildings of distinction are designed annually? And, lastly, the school student on completion is exempted from the R.I.B.A. Intermediate examination, but he has to hunt round for office experience.

The office pupil stays on as assistant or his chief does his best to place him in another office either as "improver" or assistant; but he has to pass the R.I.B.A. Intermediate if he aspires to Associateship.

Which is the more happily circumstanced? Which makes for thoroughness?

G. L. W. B.

Architects and Decorators.

SIR,—Mr. Godfrey Giles's reply to my letter is interesting and valuable as showing another point of view, but I fear that I did not make my meaning quite clear on one or two points. A number of our village master painters have been trained in London or other large towns and show a keen understanding and grasp of the essentials of good decoration. I did not state in my letter that the scale drawings and details were uncoloured, but surely it is taken for granted that the architect would visit the work periodically and settle the colours on the spot, give instructions as to spacing of diapers and stencils, and with his own hand readjust designs to fit angles, mitres and patterns interrupted by architectural features. The architect who is not competent to take his place on the scaffold to attend to such matters cannot be said to be fully qualified to supervise such work. Divided control can never produce the best results where there is such an intimate relation as there should be between two such arts as architecture and decoration. I am much interested to hear of the new scheme which Mr. Giles describes in his letter, but I doubt if the Institute of British Decorators is wise in its proposals. What we want is craftsmen not B.A. half-baked artists. To suggest that a three years' University course would give a man a full understanding of the subtle and difficult relation between architecture and decoration is absurd. The University has a real place in civilisation and even if it produced nothing but scholarly dilettanti in various walks of life, it is the backbone of the culture of the age, but to suggest that all arts and crafts should be turned into professions is to miss the lessons of the Middle Ages. While wishing the Institute of British Decorators every success I would respectfully suggest that they are going on the wrong lines. Our great and well-equipped art schools should be able to supply all the elementary and technical education necessary for the training of decorators, and if the Institute of Decorators would extend its already existing scheme of granting scholarships to the best students in decoration, great progress would result. A dozen scholarships a year, of £100 for six months' study of the painted roofs and screens in East Anglia would produce more real progress than a hundred B.A. University degrees.

These scholarships would be given to the best students in the house painter classes in our leading art schools, special outstanding students receiving further scholarships for travelling in Italy and Spain. William Morris received most of his inspiration from the East Anglian work and it is astonishing how little our leading decorators seem to know about it. The study and analysis of the mediæval decoration in Norfolk and Suffolk alone would equip any architect or decorator to understand and solve the most intricate and subtle of decorative problems. Not a mere blind copying but a real study of the relation of scale between the two arts and the relation of colour to surfaces and mouldings. Incidentally the Institute of British Decorators might in time gain the distinction of making a complete record of this most valuable period of native English art; a period when it attained the finest harmony and sanest relation with the sister art of architecture.

If Mr. Giles, the President of the Institute, would commend this scheme to the Institute, the present writer would willingly supply him with a list and description of the best work.

No subject appeals to the present writer with greater force than this question of decoration, and the above remarks are made

in no spirit of fault finding and antagonism, but with a real and earnest desire to find a remedy for the present chaotic condition.

ANGLIA.

The New Orders of the R.I.B.A.

SIR,—Referring to a letter appearing in your issue of February 3 under the heading "The New Orders of the R.I.B.A.," may I be allowed to reassure the writer that the "Standard Method of Measurement of Building Works" requires slight and quite unimportant modifications of what has been the practice of Northern Quantity Surveyors for the last twenty years?

THOS. HERDMAN RAE,
President Northern Quantity Surveyors' Association.

Architectural Miscellanies.

SIR,—Mr. Robert Atkinson's paper on "Architectural Books," read before the A.A., was described by Mr. Rudolf Dircks, the librarian of the R.I.B.A., as the best address he had ever heard on this subject. Your report in last week's *Builder* interested me exceedingly. Of course, it would be beyond the limits of any lecture to speak of minor matters and outstanding masterpieces—like the standard works on the English Renaissance by J. A. Gotch, by Belcher and Macartney, and by Garner and Stratton, dealing with the Tudor period of Domestic Architecture—all speak for themselves.

"Miscellaneous compilations," or otherwise "Scrap Books," are of a different order, usually only found in enthusiasts' libraries, and there possessed as workaday tools of the utmost consequence, being untiring selections with endearing interests covering many years. For example in point, at the moment of writing, the burial this week of Lord Haig within the confines of the ruined Abbey church of Dryburgh, Berwickshire (founded by Hugo de Morville in 1150 A.D.), induced me to look up in one of the bound books of mine, preserving, midst treasures of the same sort, a long-remembered view of Dryburgh's cloisters seen from the north transept. This study was published in 1871, by my great friend Axel H. Haig, and this drawing of his shows where Sir Walter Scott rests in the tomb of the Haliburtons.

My scrap-book copies of his plates of this period are devoted to Scottish subjects. They are things apart from Axel Haig's "later" collection of etchings shown in his "Life and Work," published in 1905. When he died in 1921, I wrote an article on his career at the request of the Editor of the *R.I.B.A. Journal*, and several letters from him are kept in my other records of our friendship.

"Scrap Books" are apt to become untidy, and at best are not parlour books, but when well done they must enhance any library. Such, for example, as my series of the A.A. excursions, and when I turn to my books of selected plates chosen from the professional Press, I am confronted by a profusion of other minds' studies not only from the hands of Axel Haig but by Brewer, Wm. Burges, E. W. Godwin, Norman Shaw, Eden Nesfield, Ernest George, and during later times. I possess, also, about 150 "Rambling Sketches" and charming general views of historic buildings in London, as well as details of old and new work of all dates, by T. Raffles Davison. These enable me to realise the Editors' difficulty of selection mentioned in the preface of his memorial volume, lately published, which ranks with the best of my books, by giving that personal touch always found in the older series of the A.A. Sketch Books, hence so appropriately referred to by Mr. Walter Tapper, A.R.A., the other day in his presidential address to the R.I.B.A. students at Conduit-street.

As to Dryburgh Abbey, of course, for plan and other details I consulted my copy of MacGibbon & Ross's scholarly volumes on the "Ecclesiastical Architecture of Scotland" (1876), but A. H. Haig's expressed best the environment for which I was looking.

MAURICE B. ADAMS.

THE REPAIR OF ANCIENT BUILDINGS—VI

BY A. R. POWYS, A.R.I.B.A.

DEFECTS IN MASONRY, BRICKWORK, AND WALLS GENERALLY, WHICH ARE DUE TO UNBALANCED THRUSTS, TO "DRIFT," AND TO BAD BUILDING UP OF MATERIALS.

DEFECTS due to unbalanced thrusts occur where arches and roofs have no tie from abutment to abutment, or are not supported by masses of masonry or buttresses of sufficient weight or stability. They may also be due to the fall or disappearance of buttresses or counter-balanced arches or vaults. These defects may be recognised by the lean of a wall or pier away from the direction of the thrust, by the deflection of arches and the movement of archstones, and by the bending of piers and walls, with the consequent loosening or fracture of the walling near by. Where the want of tie-beams in a timber roof is the cause, the joints of the principal trusses will be found to be open and the principal rafters bent or fractured.

Defects due to "drift" are of like kind, but pass from one end of a building to another, thus the mass of an arcade-supported wall may remain sound while all the columns or piers beneath lean away from the centre of pressure.

Bad building is due to poor mortar or to the careless arrangement of stone or brick in it, or to both causes together, and these defects are more common in the core of a wall than at its faces. This condition may be recognised by the bulging and loosening of facing materials, by the displacement of individual stones, and by distributed fractures. Vertical cracks in the jambs of doors or windows give reason to suspect a loose and badly built core. The crushing, spalling and cracking of face stones of a pier or wall under direct loads indicate also that the core is probably poor. When piers which are known to be of uniform strength are fractured or spalled, it is a sign that they are eccentrically or over loaded.

Defects in Masonry, etc.

Where it is found that thrusts or drifts are becoming a danger to the life of a building, it should be decided how they may be made inert by work to be done within the walls of the building itself. Such a scheme may be put into practice coincidently with the repair of the fractures created by these movements, but the repair of the fractures will not be permanent until efficiently designed means have been taken to resist the forces that brought them about. In some cases there may be reason why these active forces should be met by new external and visible members which may be regarded as permanent props or shores. The nature of the overturning forces is so varied, and sometimes so complex, that an attempt to describe them here would take too much space. Before he determines on a scheme, the architect is advised to learn what has been done in other like cases. The English mediæval builders tended to avoid the use of tensional members in building, and this may perhaps be said to constitute the chief difference between their and our methods. It will be found that the schemes for resisting the thrusts and drifts which are consequent upon their methods often include the insertion of the tensional members which it is our custom to use in modern building. The insertion of these members may change the whole constructional idea of an old building, and by that very change harm it as an example of the old art of building; yet it may be that such methods are the only way by which the old form of a building may be retained without external additions. It is known from experience that "drift" may continue for centuries before collapse occurs, and it seems that it is usually wise only to make use of these modern structural methods when a building cannot long continue without them, and not before. It seems that until that time arrives we should repair an old building by the means that were traditional when it came into being, or, perhaps, only use our modern methods to repair single parts, always remembering that the time may come when the local work we do now may have to be linked to a scheme embracing the stability of the whole structure.

The modern material that has made such great changes in the constructive principles affecting our subject is reinforced concrete, a material which endures great compression or tension. Even after a comparatively few years of use it seems almost certain that iron and steel, properly embedded in concrete, are not affected by rust. But while any uncertainty remains, this material, if used at all, should be used sparingly within the walls of old buildings. Ordinary iron and steel are not, however, the only metals which are available for this purpose; there are various alloys, such as "delta" metal, and both rustless iron and rustless steel, and while the behaviour of ferro-concrete is in any degree uncertain it is wise, where valuable monuments are concerned, to use one or other of these metals as reinforcement.

There is yet another material which, while it is known to be certainly imperishable, is unable to resist the great tensile or shearing stresses which reinforced concrete will bear. This material is plain roofing tiles laid in cement mortar. Wherever the space within a wall is available and the disturbance caused to the wall by its insertion is not too great, this material is recommended in preference to reinforced concrete.

It is the business of those who draw up the survey to search for and record the causes of failure, and to appraise their relative importance. It is not enough for them to see ponderous abutments or large tie-beams; they must find out whether these members are, in fact, still doing the work they were designed to do. Roof beams may stretch from wall to wall, and yet, owing to decay, their ends may no longer aid the wall plates to withstand the outward spread of a roof. Buttresses, because they were built battering toward an arch, may show no outward lean, but yet may long have ceased to perform adequately the purpose for which they exist.

It is not my purpose to make suggestions for stabilising the walls and arches of great buildings, but rather to discuss how this is done to-day in regard to those smaller works which too commonly need such treatment. The principles are the same, the scale of the work alone differs. In considering the more familiar, we also inevitably refer to the unusually great. The repair of individual defects in walling, then, will be considered here, and only by inference or brief notice is the linking up of a whole building in a single scheme indicated.

When a wall has failed, whatever the cause of the failure, if still standing it may always be repaired by either of two methods, used together or separately, namely, "*by building*" or "*by grouting* under pressure." There is never need to destroy and thereafter to rebuild.

Repair by building is the process of rebuilding in small pieces at a time those portions of a wall which are defective and need strengthening. *Repair by grouting* is the process of forcing into the crevices of a wall a liquid mixture of cement and sand. Each of these processes is described and explained in the following articles. But first it may be desirable to warn the amateur that it is useless to expect that a few bondstones inserted in the face of a wall across a fracture, or that gravity grouting will prevent an existing movement from continuing to act. Such work is waste of money.

(*To be continued.*)

ILLUSTRATIONS

House, Stowell Hill, Templecombe.

We illustrate this week some of the charming work done by Mr. E. Guy Dawber, A.R.A., at Templecombe, of special interest in view of Mr Dawber's nomination for the Royal Gold Medal.

New Buildings, Wellington College.

These are new buildings recently erected at Wellington College, Berkshire, which provide additional accommodation for the increasing needs of the school. The ground floor comprises three large classrooms divided by folding doors, which enable a large room to be formed for purposes of Army examinations, etc. Above these classrooms are placed, on the first and second floors, two dormitories connected with the dormitories in Combermere and Hardinge's blocks to either side. The remainder of the new building is occupied at the north-east end with quarters for a married tutor, arranged on three floors. The corridor or cloister, of the full length of the building, is divided on the north-west side in prolongation of the corridor of the south-east side of the dining-hall block (erected 1906-7). The walls are constructed with a cavity, and are in brick, while Empire stone has been used for plinths, cornices, etc. The roofs are covered with Welsh green slates. The general contractors were J. Dorey & Co., Ltd., of Brentford. The heating and domestic hot-water were by Richard Crittall & Co. Assistance was given in superintending the work by Mr. C. S. King, College Clerk of Works. The new buildings were carried out from the designs and under the direction of Messrs. Charles J. Blomfield & Morgan.

New Cinema, Beaconsfield, Bucks.

This cinema is on a site adjoining the Council offices in the new part of the town. It is designed by Messrs. J. R. Leathart and W. F. Granger, FF.R.I.B.A., in the Georgian style to conform with the existing buildings on the estate. The total seating capacity is 500, and there is a residential flat over consisting of a lounge, two bedrooms, dining-room, kitchen and scullery. The building is faced with multi-coloured bricks, with stone dressings, and roofed with green slates. The interior decorations are of a modern type, pleasing in character, with a good colour scheme. The auditorium is warmed by a floor system of heating, thus the heat is radiant. The plenum system of ventilation has been adopted, with inlet on either side of the proscenium opening, and extract in the ceiling. The total cost of the building was £8,200, including the building, decorations, etc., engine-house, garage, light fittings, but not including seating and generating plant and projector equipment. The builders were Messrs. H. J. & A. Wright, Ltd., Great Missenden; heating, Haden's; electric-light fittings, Higgins & Griffiths; decorations, Campbell Bros.; fibrous plaster, De Jongs; external electrical fittings, General Electric Co.

War Memorial Panelling, Wellington College.

This panelling, which surrounds the Old Hall, is a memorial given by Sir John Capper in memory of his son, who was killed during the Great War. The work—carried out by Dart & Francis, of Crediton—was designed by the architects, Messrs. Charles J. Blomfield & Morgan.

The Science Buildings, Wellington College.

The new science buildings at Wellington College, Berkshire, have been planned to take the place of the laboratories at present in use in the school. They are intended to comprise the last word in arrangement and fitting. They will not be connected with the present buildings, but will be placed on a site at the north-west of the dining-hall block. Messrs. Charles J. Blomfield & Morgan are the architects.

Console Gallery, St. Saviour's, Eastbourne.

We illustrate this week the console gallery of the Church of St. Saviour's, Eastbourne, which is the work of Mr. R. Liddesdale Palmer, A.R.I.B.A. The drawing is by Mr. Joseph Pike.

Branch Bank at Bispham.

This building, by Messrs. Lumb and Walton, FF.R.I.B.A., will be carried out in Portland stone on the ground floor and in brick in the upper stories, the whole being completed with a high Mansard roof.

The Gateway, Lancaster Castle.

This gateway, from a pencil drawing by Mr. C. B. Pearson, F.R.I.B.A., is the pride of the ancient borough. It is one of the finest in this country, and is too well known to need description.

New Business Premises, Lancaster.

These new premises in course of erection are situated at Horse Shoe Corner, and form part of the Cheapside Improvement Scheme. This is a much-needed widening to a very narrow thoroughfare, and will add, when complete, to the shopping facilities of the town. The site is a restricted one, and will consist of basement, shop on the ground floor, showroom on first floor, with stockroom, lavatories, etc., on the second floor. The front is in local stone, with granite base. The roof is of concrete, with the front slopes covered with green Westmorland slates and the flats with asphalt. A feature of the corner is to be a clock turret, with clock fitted by the Synchronome Co.

The general contractors are Messrs. J. Parkinson and Sons, of Lancaster. Among the principal sub-contractors are:—Arthur O. Thoms, mason; Watkinson and Hargreaves, slaters and plasterers; Turner, plumber and glazier; Clarkson, painter; Inman, electrician; Banister, Walton and Co., steelwork; Faldo and Co., asphalt; Haywards, Ltd., pavement lights; Calvert and Heald, heating. Mr. C. B. Pearson, F.R.I.B.A., of Lancaster, is the architect.

Christ Church, Streatham Hill.

Christ Church, Streatham Hill, which we illustrate this week, is being slowly decorated in oil colour by a band of some twenty members of the congregation under the direction and supervision of Mr. A. E. Henderson, F.S.A., R.B.A., L.R.I.B.A., who is responsible for the designs. The interior of the church is very dark, and the patterns require great contrast in tone values. The work has now been in hand for 2½ years, and is likely to continue for some time longer.

The church was consecrated eighty-six years ago, and is perhaps the best work of its architect, J. W. Wild (1814-1892), a pupil of Basevi. It is an outstanding example of a school of design which was cut short by the Puginian phase of the Gothic revival. Built of brick, basilican in plan and Lombardic in detail, the external effect is eminently satisfactory. Unfortunately the original interior finishings were no whit beyond the standard of the period, and such rearrangements and additions as were made subsequently served but to destroy the harmony of the scheme without ameliorating the drab effect. In July, 1925, Mr. Henderson put in hand the present work of complete internal redecoration, acting as honorary architect and supervising the labour of a band of voluntary workers belonging to the congregation. The whole of the internal surfaces of the church are being painted with elaborate designs, based on the works of the Byzantine School.

Full size cartoons are drawn by Mr. Henderson for each part. The surface to be dealt with is washed down and treated with one coat of white undercoating. The design is then transferred on to this, and then the workers fill in between the lines with a flat wash of oil paint as indicated on the cartoon. No stencilling is allowed. Parts entailing special difficulty, such as the continuous band of saints in the south aisle, are executed by Mr. Henderson personally.

Design for Sports Pavilion.

This design was the winning one in the competition for the Batsford Prize at the Polytechnic School of Architecture, Regent-street, W.1. It is by Miss Hawtin.

New Head Offices, City-road, E.C.

These new head offices for the Singer Sewing Machine Co., Ltd., are at the corner of City-road and Tabernacle-street, E.C.2. The ground floor is in polished Norwegian granite, with bronze shop-fronts, and the upper building in Portland stone with glazed Norman tile roof. Mr. W. A. Lewis, A.R.I.B.A., was the architect.

THE PRIX DE ROME COMPETITIONS

THE subject of architectural design, "A Cemetery Chapel," has attracted a large number of competitors, but out of them all the seven selected for final competition represent all that could be fairly accounted in the running. We see in these efforts some genuine realisation of how distinction may be obtained in building, though this is obtained in some cases by a somewhat unreasonable height of building. And that is why the circular plan of No. 45 appears to succeed best. The interior with the flat elliptical dome and surrounding aisle divided by circular columns repeating the square pier projections on the outer wall would have an impressive result. The simplicity and reticence of the exterior with its flat dome and wall space divided by rounded piers is quite pleasing and a telling effect is obtained by the low, wide-spreading entrance crowned by winged figures. Both Nos. 43 and 44 are clever designs, the latter of a distinct Gothic type with an admirable vaulted interior, the aisle arcade being carried round a circular apse. No. 43 is a more original design, but one doubts if it would make so good an interior as its neighbour. No. 47 has a good monumental quality. No. 48 has a clever plan and a Romanesque type of exterior in which the battering of the tower appears very much overdone.

One selection is marked in sculpture, No. 21, by Cecil Brown, whose low relief sculptured panel is good. Nos. 19, 20, and 23 all show good handling, the latter by Rose S. S. Creswell Clark shows a very refined and pleasing figure.

Painting is again a disappointment; whilst a certain amount of technical excellence is apparent there is a great want of breadth and cohesion in the decorative panels and a very distinct lack of sound colour values. There is some really good colour sense in the work of one of the students who has failed, but one almost wonders how students could be allowed to proceed with work which in another case shows such a ludicrous idea of what painted decoration should be, for in this the work is quite childish and inane.

In looking over the pencil studies of the nude we find several drawings which only show how disagreeable such things may be, and yet there have been students of the nude who have succeeded in getting an ideal of beauty into their work. Whether models are always what they should be, there can at any rate be no good in heavily emphasising the less pleasing qualities.

In the engraving subjects we do not seem to have drawn any remarkable talent, but we venture to think No. 1 scores better than his successful rivals in the real vitality of his work.

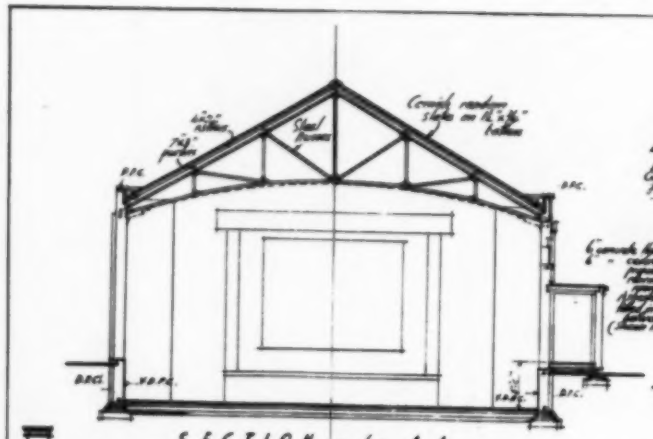
Imported Cast-iron Enamel Baths.

The Standing Committee (General Merchandise) appointed by the Board of Trade will hold their inquiry whether imported cast-iron enamel baths should bear an indication of origin, at 10.30 a.m. on Tuesday, February 14. The meeting will be held at the Board of Trade Offices, Great George-street, London, S.W.1. Communications should be addressed to the Secretary, Mr. E. W. Reardon, at that address.

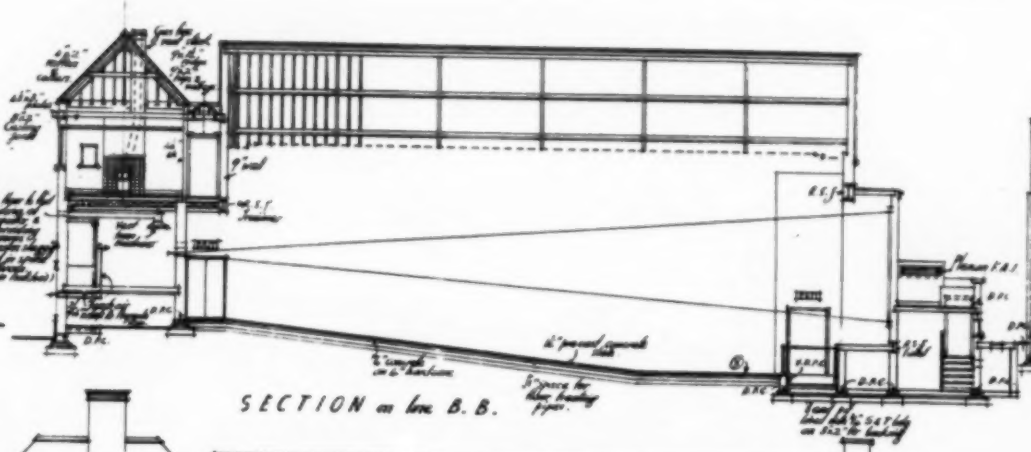
UNIV. OF MICH.

New Head Offices for the Singer Sewing Machine Co., Ltd., City Road and Tabernacle Street, E.C.
Mr. W. A. Lewis, A.R.I.B.A., Architect

UNIV. OF MICH.



SECTION on line A.A.



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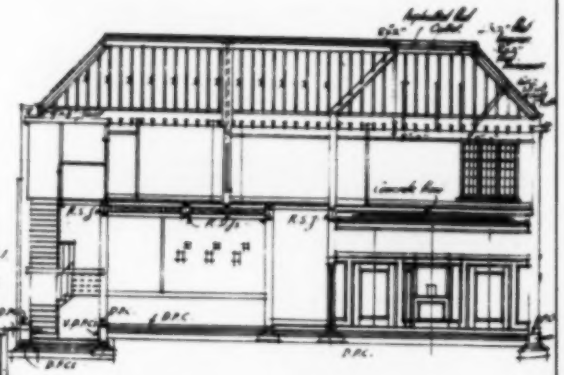

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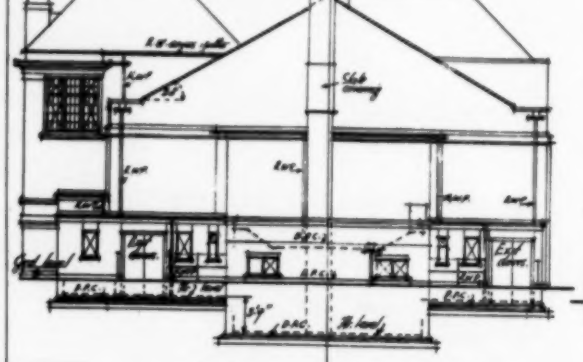
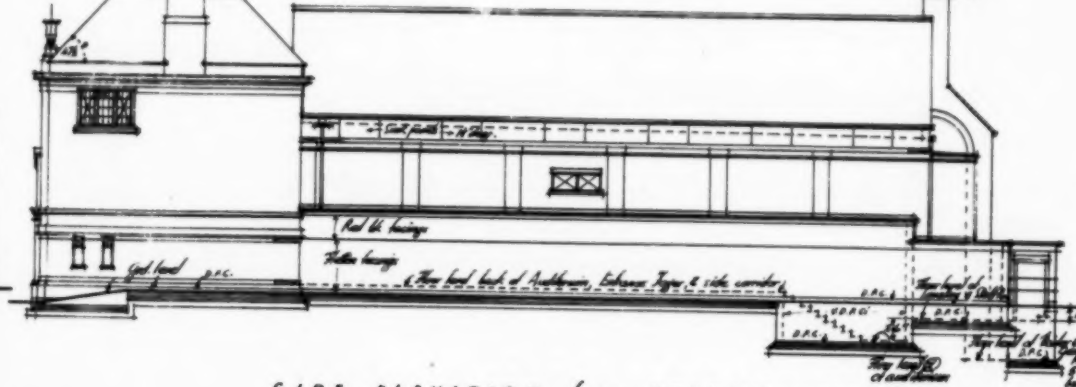
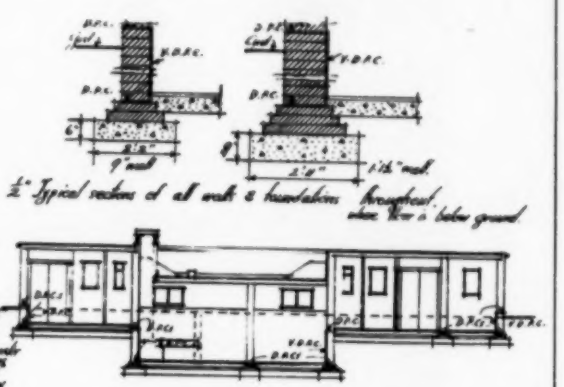


REAR ELEVATION.



SIDE ELEVATION facing COUNCIL HALL.



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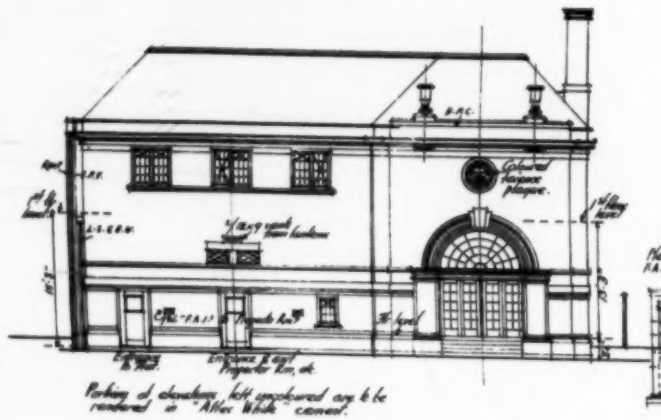
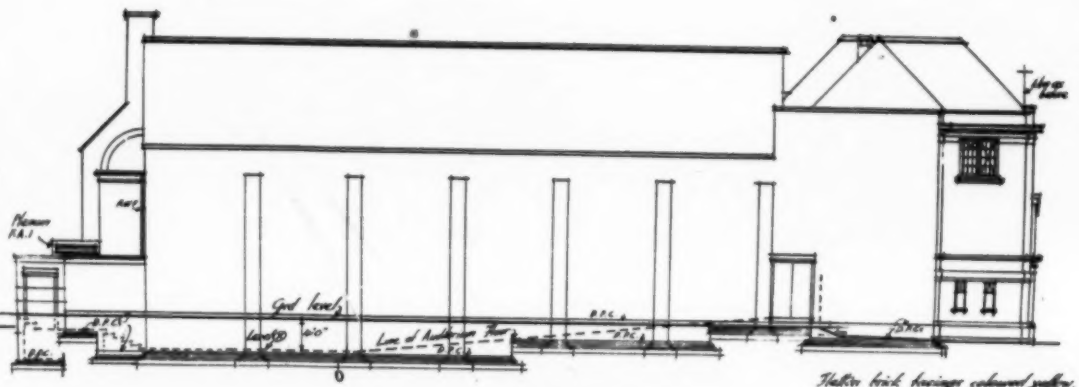


Parking of chambers left unpainted may be rendered in "Alba White" cement.

ELEVATION & STATION RD.



SIDE ELEVATION facing S.E.

N.B. The inner faces of all walls below ground to be rendered from lower to upper D.P.C's with 1 coat hard cement with admixture of "Tarament" waterproofing where indicated V.D.P.C. All ground concrete floors to have integral mix of "Tarament" waterproofing.

THE BUILDER, FERRU

ELEVATION & STATION RD.

SIDE ELEVATION facing S.E.

FOUNDATION PLAN:

AUDITORIUM FLOOR PLAN:

PLAN of FLAT sloping ROOF:

KINEMA, BEACONSFIELD, BUCKS.

Messrs. Leathart & Granger, FF.R.I.B.A., Architects.

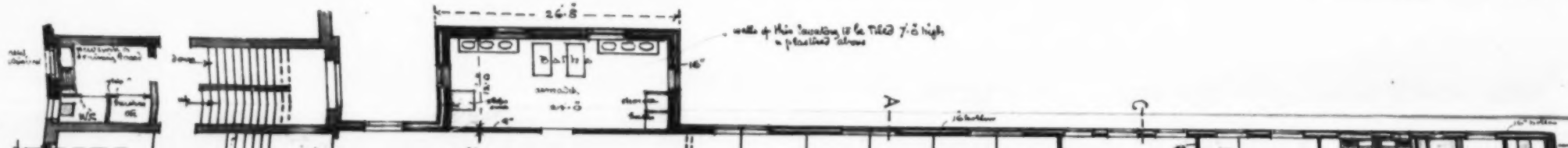
New building ——— existing buildings - - -

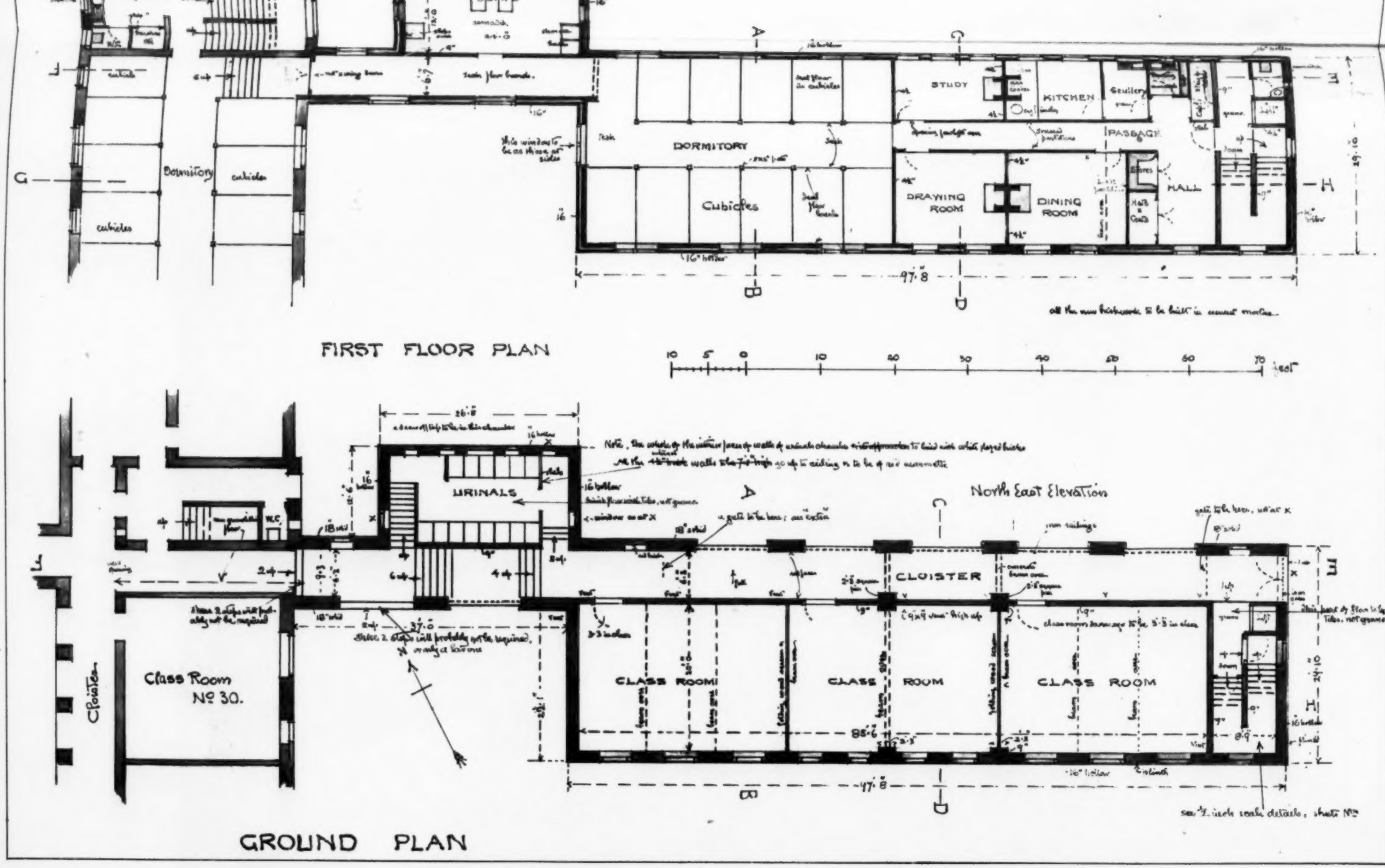
WELLINGTON COLLEGE, BERKSHIRE.

ADDITION OF CLASS ROOMS, DORMITORIES ETC

J.W. Morgan del.

Charles J. Blomfield & Morgan, Architects.
13 Ashburn Gardens, London S.W.7.





WELLINGTON COLLEGE, BERKSHIRE: NEW BUILDING.

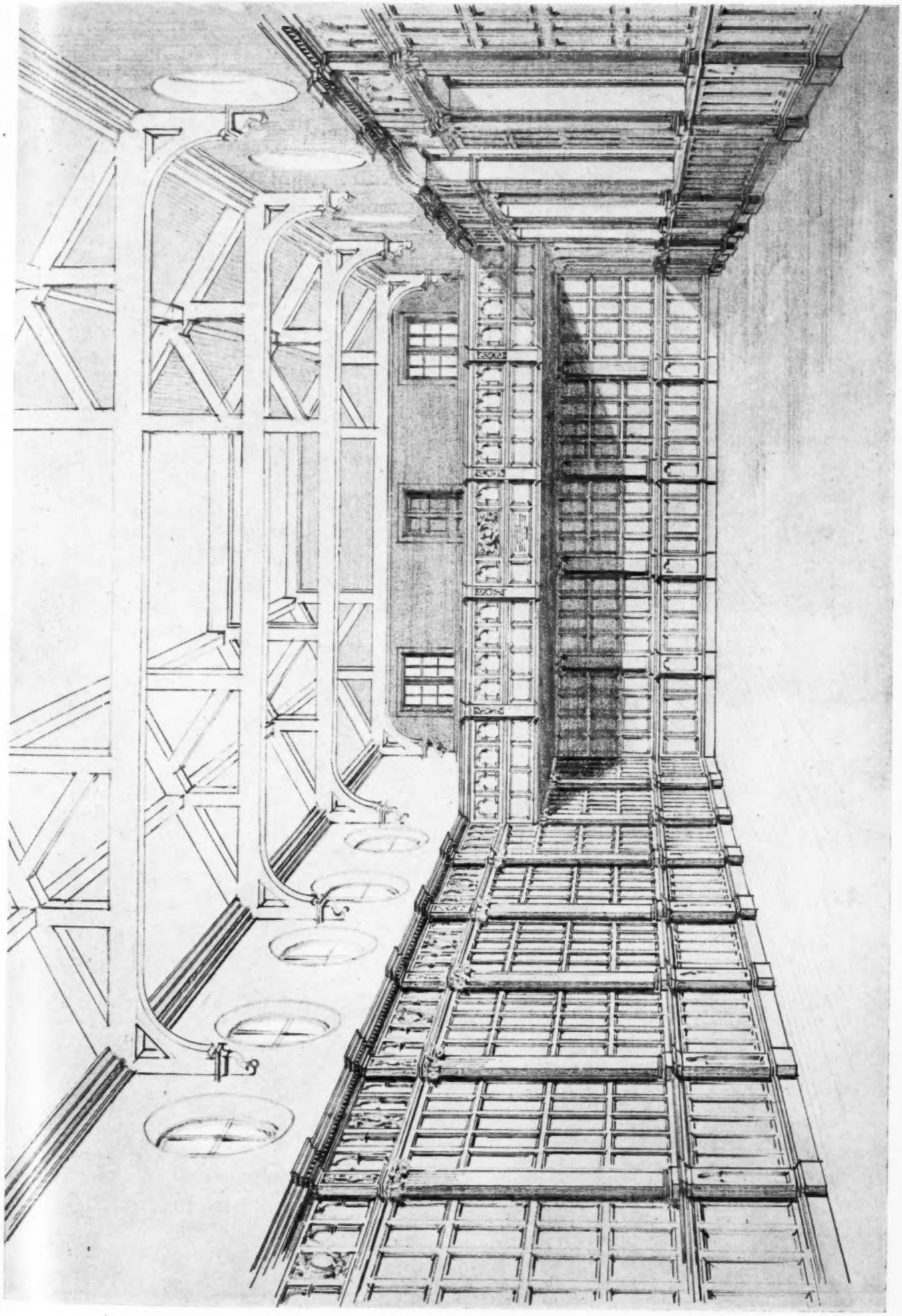
Messrs. Charles J. Blomfield & Morgan, Architects.

UNIV. OF MICH.

Stowell Hill, Templecombe : Garden Front

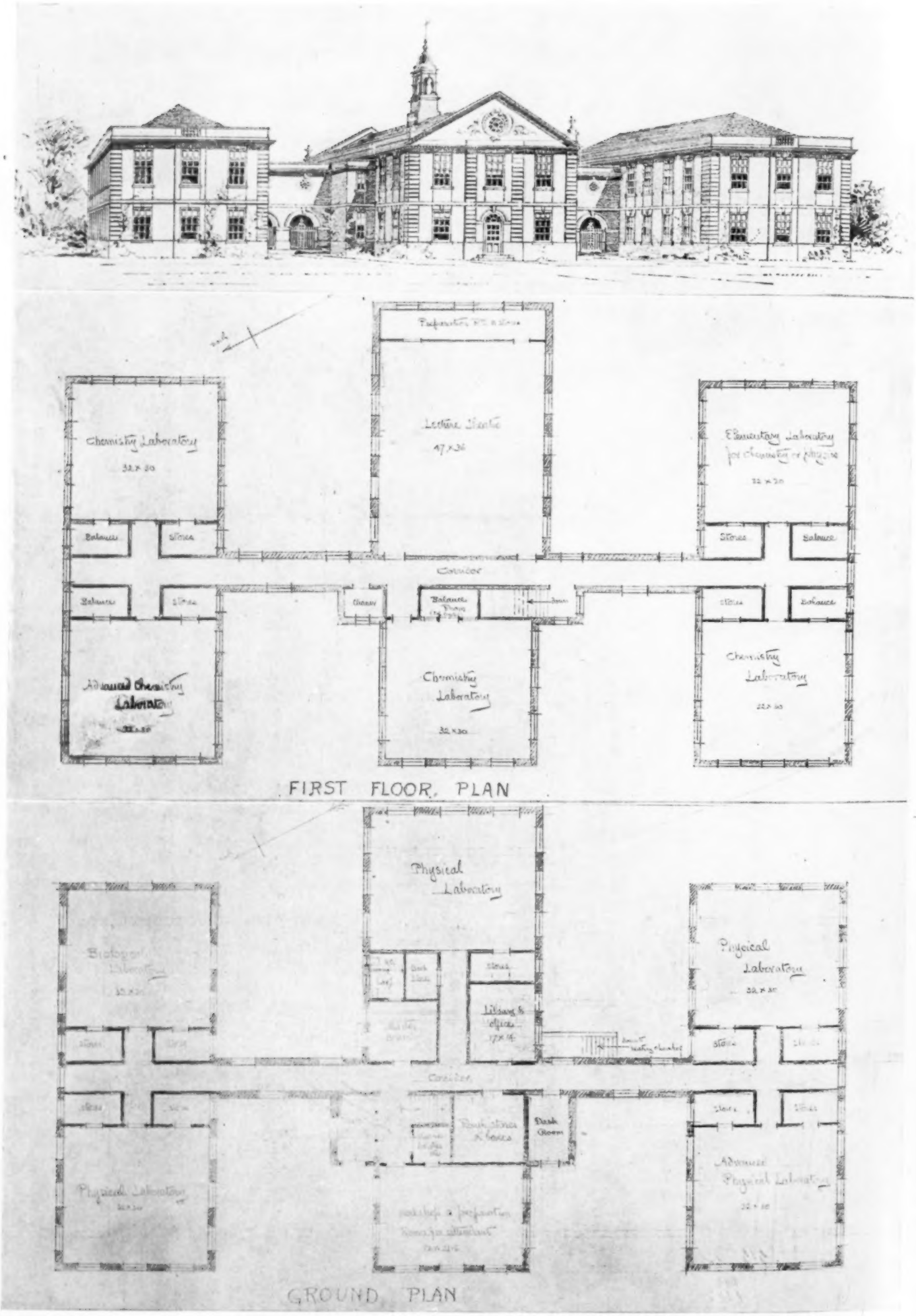
MR. E. GUY DAWBER, A.R.A., P.-P.R.I.B.A.

UNIV. OF MICH.



Wellington College, Berkshire : War Memorial Panelling in Old Hall.

MESSRS. CHARLES J. BLOMFIELD and J. MORGAN, Architects.



Wellington College, Berkshire: Proposed New Science Building.

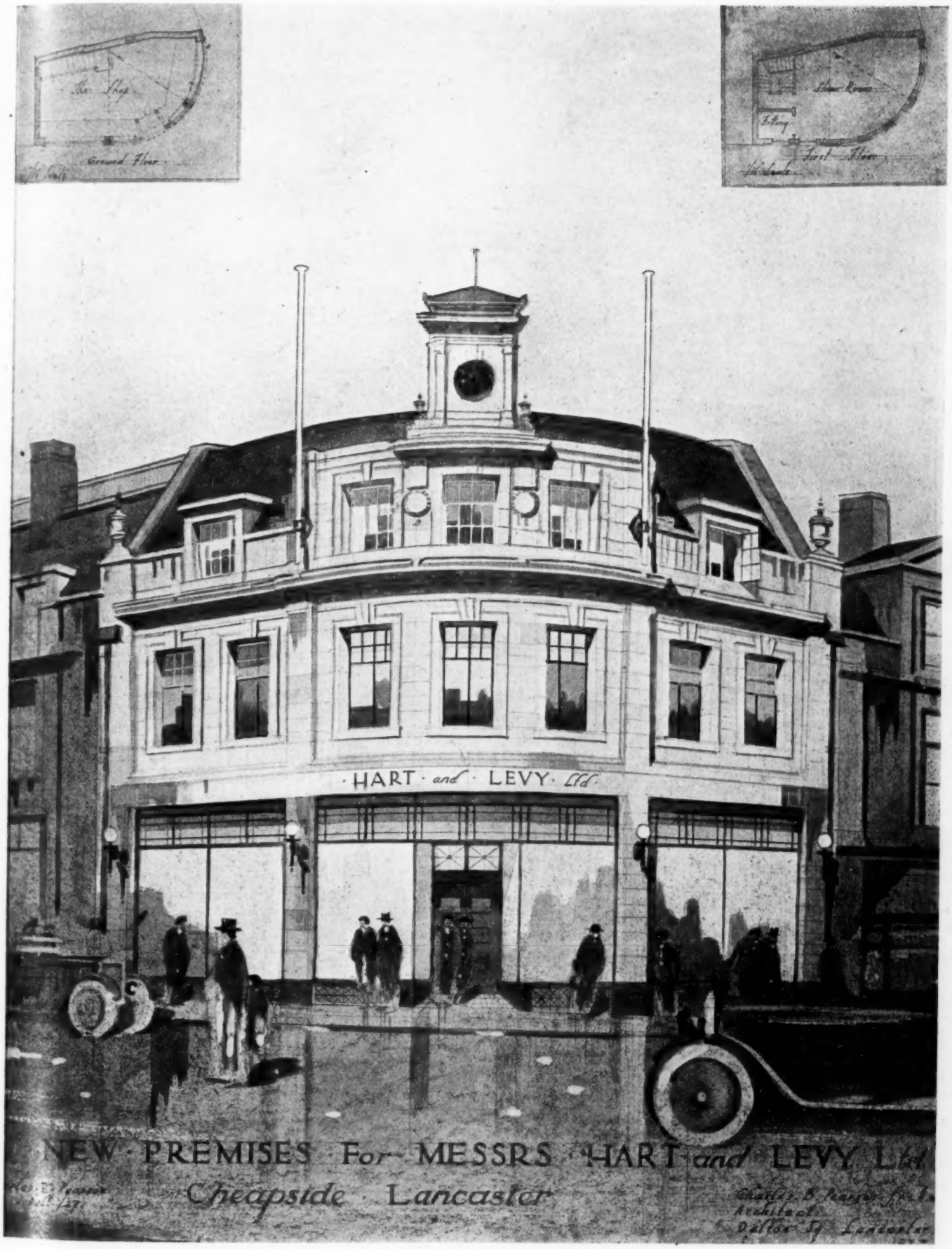
Messrs. Charles J. Blomfield and Morgan, Architects.

A Branch Bank at Bispham.

MESSRS. LUMB and WALTON, FF.R.I.B.A., Architects.

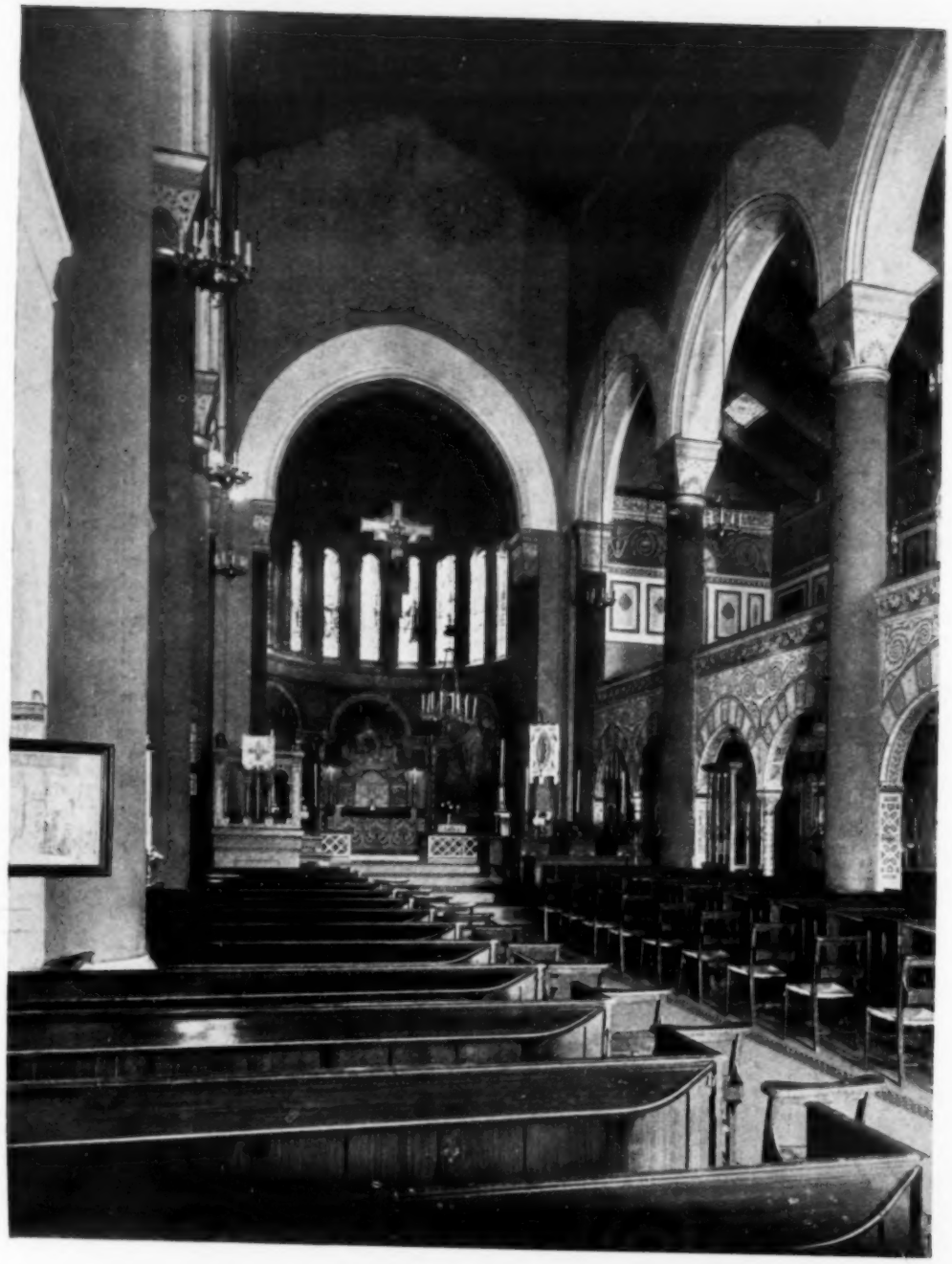
The Gateway, Lancaster Castle.

From a Pencil Drawing by Mr. Charles B. Pearson, F.R.I.B.A.



Business Premises, Lancaster.

MR. CHARLES B. PEARSON, F.R.I.B.A., Architect.

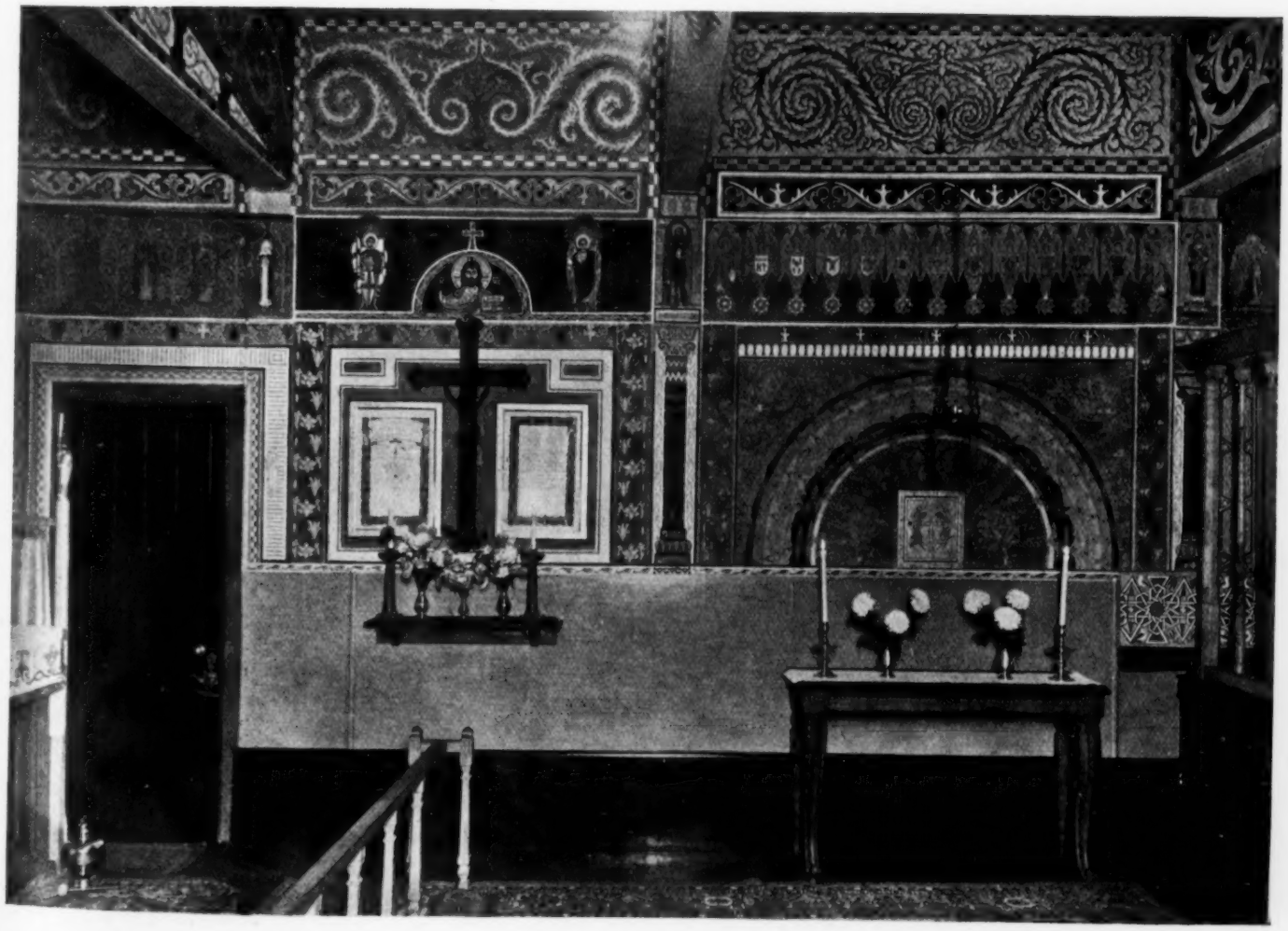


GENERAL VIEW OF INTERIOR.

SOUTH-EAST ANGLE.

Christ Church, Streatham Hill: New Decorations. Designed by MR. A. E. HENDERSON, F.S.A., L.R.I.B.A.

EASTERN END OF SOUTH AISLE.

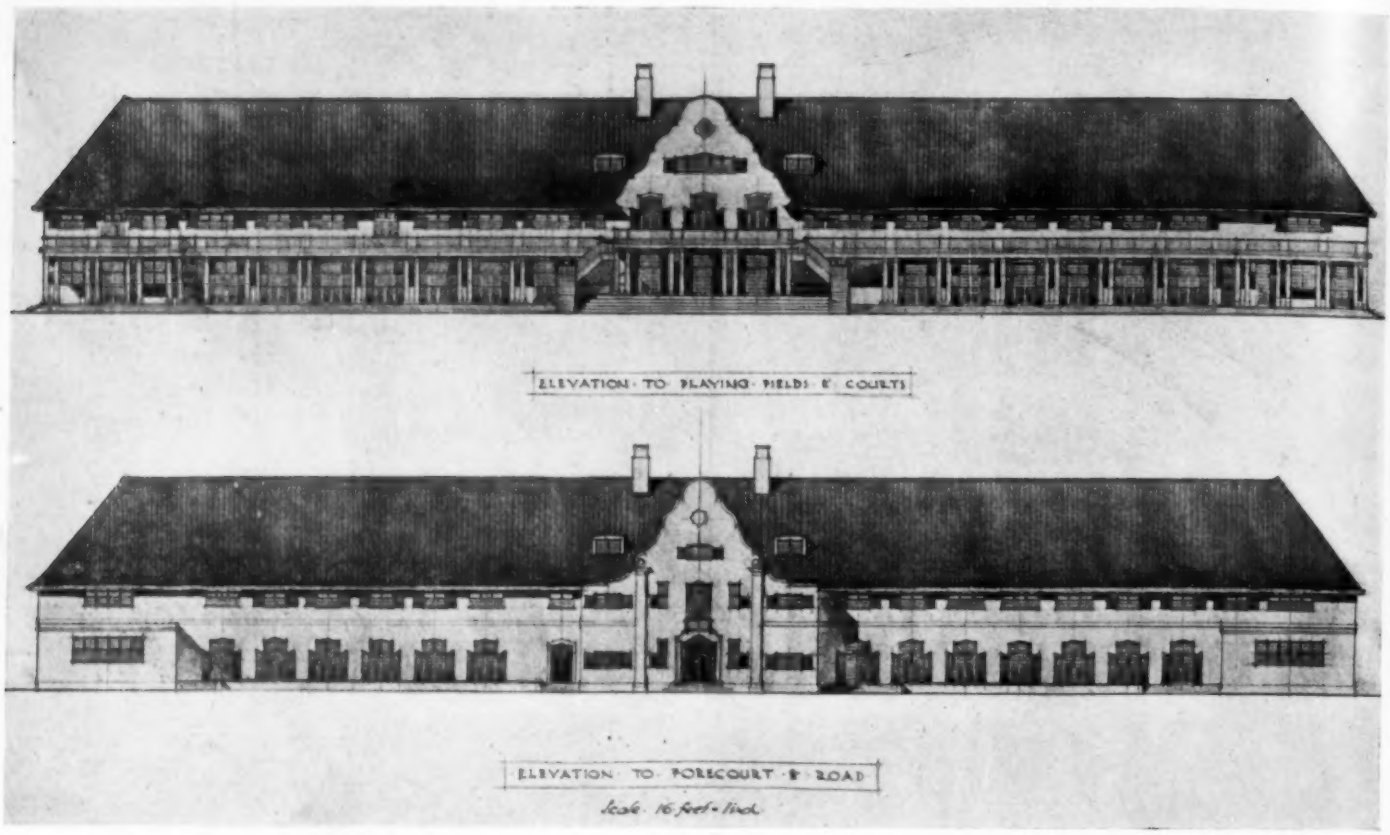


AUMBRY AND WAR MEMORIAL.

Christ Church, Streatham Hill: New Decorations.

Designed by MR. A. E. HENDERSON, F.S.A., L.R.I.B.A.

Christ Church, Streatham Hill: New Decorations. Designed by Mr. A. E. Hendersos, F.S.A., L.R.I.B.A.



Design for Sports Pavilion.

By Miss Hawtin. Winning Design for Batsford Prize, The Polytechnic School for Architecture, W.1.

A CORNER OF THE GREEN.

THE CHURCH.

THE "CROWN" INN.

THE WAR MEMORIAL.

Typical "Green" Villages. (*See page* 262)

ENGLISH VILLAGES—II*

By V. M. CHRISTY.

THE "green" village of former times would be self-contained as to its everyday needs, but it might be the scene of an annual fair for the interchange of commodities not obtainable in the locality. Conspicuous among the trade buildings in this, as in most villages, would be the smithy. This would be found at some little distance from the other craftsmen's shops, the object, even in our own time, of a fascinated wonderment, dimly reflecting the reverence, not unmixed with fear, accorded to the blacksmith's shop in bygone days. It is not without significance that the smithy is often situated in the northern portion of a village, that is to say, at the point of the compass regarded as appropriate, in the mediæval mind, to the works of darkness. Indispensable though his work might be, and highly respected the smith himself, there was evidently a lurking fancy that Vulcan's craft was a "mystery" in a deeper sense than was that of the stonemason or the carpenter. Craftsmen such as these held a position of some importance in a village of old time. In early days the inhabitants of all grades would hold plots of land themselves as well as rights in common and responsibilities to correspond. Under the later Saxon system, and in the Norman days, indeed, thenceforward for some centuries, some man of greater standing would probably reside in the village to look after the interests of the lord of the manor, even if there were no resident landowner.

One or two examples of typical "green" villages are illustrated to provide material sufficient for an outline analysis of the various features and their relation to one another. The first illustration shows the centre of a village green, in which lies, at the western side, a boulder, not improbably indicating some very early site of importance at the point of convergence of ancient trackways. The oak tree planted in celebration of some national occasion is a symbol appropriate to an ancient site, and perhaps succeeds some far more ancient tree around which news was interchanged of old. A similar boulder and a tree planted at the time of Queen Victoria's Jubilee are to be seen on another village green, whose church appears in one of the accompanying illustrations. In this case the area covered by that part of the village which definitely surrounds the green is about fifty yards across, approximately square, or a trifle longer from north to south than from east to west. On the western side is the church, with its rubble walls and its commanding tower of red brick, decorated with darker bricks in irregular patterns. The porch, too, is of brick, the local building material. Beside the Church is the Hall, a fair-sized farm house with its appropriate barns and outbuildings, a house of some importance compared with its neighbours. Not far from the Hall the road skirts the green and passes the village pump with its protective railing. The smithy is seen set back a little on the north side of the green, with the smith's house adjacent; at the present time part of the house is occupied by the Post Office but the smith's own portion is distinguished by a well-executed piece of ironwork over the porch. Beyond, where the road continues out of the village towards an estuary, more dwellings are set here and there. Along the eastern side of the green are the most numerous of the cottages, most of them built in the nineteenth century, in a straightforward, not unpleasing style, of brick with sash windows. Some have tiled roofs, the local alternative to thatch; some are roofed with slates, readily obtained by water, and therefore less conspicuously alien to this district than to some. The principal feature of the south side is the village inn (see page 261). Today a stopping-place for the motor-'bus, "The Crown" may have been of some importance to road travellers of former days, though it makes no blatant appeal to the tourist of our own. The village schools, a comparatively new addition to the needs of the village community, although nowadays one of the chief public buildings, are set back some yards from the road and do not obtrude themselves into the plan of a village developed during past centuries. The same applies to the school or chapel behind the shoemaker's shop in another "green" village. Here weather-boarding is used in the older buildings around the green with an effect of simple dignity, for the cottages with gabled dormers, and also for the more pretentious group where the general shop forms a feature, and curved railings contrast with the straight lines of the steps.

The Shoemaker's Shop.

The "General" Shop.

Another village deserves analysis, partly because it is one in whose name the characteristic of its plan appears, and also because its green is actually one of the largest in England. Matching Green, Essex (p. 263) has two sets of ponds, and a wide stretch of green over which the ducks and geese wander, and a horse or two graze. On a level portion of the extensive grass the village cricket club has room, not only for its game, but for a miniature pavilion, without any detriment to the amenities and public enjoyment of the rest of the wide expanse. Around the green the cottages are chiefly thatched, though some are tiled. There are two or three inns, a picturesque shop and Post Office, and a fine Georgian house occupying a suitably dominating position, but without undue arrogance.

A few out of hundreds of possible and suitable examples of villages built round a green have been cited which are still definitely rural villages. Nevertheless the original "green" character can still be traced in many an urban and suburban place, especially where the word "green" perpetuates in the place-name the lay-out and origin, as in the case of Bethnal Green.

(To be continued.)

*For previous article, see our issue for Jan. 13, page 90.

"THE BUILDER" DEBATE

II.—MINIMUM SALARIES FOR ARCHITECTURAL ASSISTANTS.

SIR,—We study the humanities so carefully nowadays, or at least we discuss them so loudly, that it is a fairly easy thing to make the public flesh creep with a list of hard cases. The picture of a highly skilled and expensively trained man slaving week in week out for a pittance that would drive the mechanic on to the dole as a more lucrative career is certain of attracting both attention and interest. The alternative of the same man comfortably existing on a salary fixed by ordinance has also its attractions. But before we hang both these highly coloured cartoons in our gallery, like the striking contrasts of a patent medicine advertisement, we should do well to consider, firstly, whether there is a disease to cure, and, secondly, whether the treatment proposed is likely to be a cure for it.

The question as to whether or not the architectural assistant is badly paid as a class is somewhat difficult to answer. It depends so much on what comparisons we are disposed to make, and upon what we consider a fair bargain between the architect and his assistant. Compared with a film star, an archbishop suffers a starvation wage, though the junior curate may have other views upon the subject. As a matter of fact, if we insist on comparisons, there is nothing but seething discontent for the whole community. Whether the average assistant receives more or less than the average bricklayer has nothing whatever to do with the case. What we are concerned with is (*a*) whether the average salary paid to an architectural assistant fairly represents his value to his principal or not, and (*b*) whether he can exist upon the money he is getting. What other men are getting in other walks of life need not concern us at all.

From a necessarily limited personal experience both in London and the provinces, my impression is that there are very few assistants of any sort of ability who are now receiving less than £3 per week in the latter and £4 per week in the former, and that even in these days of a crowded profession the really efficient assistant is hard to get, and commands a very respectable salary on his market value. True, £3 or £4 per week is little enough to live on and keep up a certain appearance, but I think it is not unfair to suggest that the men at present on these low figures are not too profitable an investment to their masters, and are at the same time adding materially to their store of experience during their service. The man at £3 per week has to release work to the value of £2,500 before he has begun to earn for his master. It may sound little enough in a big London office, but in a small provincial practice it represents a serious hole in the year's revenue, and the assistant has to be really efficient to justify it. Even at that figure the practitioner has often to dispense with the services of an assistant altogether, or take on a poorly-trained man who is saved from being no more than an expensive office boy by the little technical assistance he can give.

Surely the whole question devolves upon whether one regards technical assistance as an actual career in life, or just a preliminary training for a career. I am convinced that no boy would willingly enter the profession knowing that he had only a life of assistantship to look forward to. It is surely this that makes the case so different from others, where the pay is as high and the responsibility less. A more parallel case is that of the young medical student walking the hospitals to complete his training in practice, and at an age when many young men are already settled in life. Where assistants realise that their education is proceeding there is likely to be little jealousy of their superiors, and more contentment with their lot.

I should imagine that there are few trades or professions where the subordinate is more kindly treated than in architecture. The assistant might very well be regarded as a potential competitor. He is more often treated as a young brother in whose adolescent development his principal is glad to have shared. The absorbing night work on competitions might be frowned on as taking up energy that might be applied to the day's work. But the general rule is for the architect to encourage such exercises, and to be the first to rejoice in a success.

This is the sort of office team work which must reflect good upon all who share in it; but it cannot exist where the relationship between master and man is regulated by law and ordinance. If I have exaggerated at all the atmosphere which exists in the average architect's office, it must be that my own experience, and that of the majority of my friends, have been singularly fortunate. If I have not exaggerated it, but have described it fairly, then there is an excellent case for asserting that to institute a scale of minimum salaries for assistants would be legislating for a minority, to the detriment of the vast majority.

Who are the men who have come to look upon assistantship as an actual career, and have, therefore, no reason to discount any part of their salary with other advantages, real or imagined? There are, of course, the public servants who have entered upon an official career with their eyes open, and who have either the prospects of a progressive employment, or the advantages of a pension to look forward to. In spite of some cases where a very low salary is offered for public service, I do not think anyone would seriously ask the Institute to legislate generally for the benefit of this class.

Then there are the managing assistants or chief draughtsmen of the big London or Provincial offices. Controlling staffs varying from six or eight to a score of young assistants, such men have such scope as to look upon the position they occupy as a legitimate career in itself. They command, of course, a very handsome salary in most cases, and do not, therefore, come into the class which may be in need of protection. I fear that the remainder are for the most part some of the failures of life, not necessarily incompetent by any means, but certainly men whose mental equipment has been deficient in ambition, who have lacked the will-power to rise to the occasion, or the courage to take the plunge into private practice. This class of men doubtless includes many hard cases, but in most cases they have assessed their own value and deserve no more than they demand.

Now let us examine the probable effect which the imposition of a minimum wage is likely to have upon the welfare of the assistant. One of the first outcomes would undoubtedly be the immediate dismissal of a good number of assistants whose ability or speed of work did not justify their employment at the regulated salary. Parallel with this, it is probable that a good many others who were receiving slightly over the minimum scale, on account of sentiment or long service, would find themselves dropped to the bare minimum, under a system from which sentiment and good feeling had been banished by law. I suppose, also, that a certain class of parents, with an eye upon the minimum salary of an assistant, would place their sons in the profession merely as a pleasant alternative to clerking, and with no idea whatever of training them as practising architects.

Another result is likely to affect those who are anxious to enter the best offices simply with the idea of gaining experience and standing, and who are willing to become a sort of supernumerary for a nominal wage. It is not likely that the most prosperous office would accept the same number of junior assistants which they do now if they were forced to give a minimum salary which half of them could not earn.

These are very serious drawbacks to the idea, against which any advantages gained are purely problematical. Eventually, I suppose, there would be a number of young men squeezed right out of the profession, and this may be actually an aim of the movement. If this is indeed so, I wonder if this is realised by a number of those who look upon it as the end of all their troubles?

Although I have said that it is futile to compare the pay of an assistant with that of one in a different walk of life, so much has been made of the so-called injustice of the practising architect protected by a minimum scale of charges, refusing similar protection to his assistants, that a word upon the subject seems not out of place.

The real reason for this apparent anomaly is surely that, whereas there is no reason why an assistant who is worth less than £3 per week to his principal should not give his services for what they are worth, there is every reason in the world why a practising architect who is not worth 6 per cent. should cease to practise. The scale of charges is designed, not to keep the architect from starvation, but to maintain the standard of architecture. The standard of architectural assistance can very well take care of itself.

Therefore, at the risk of appearing lacking in sympathy for the less fortunate brothers, I have no hesitation whatever in moving:

> "That a scale of minimum salaries for architectural assistants is not at present a practical proposition, and is against the interests both of the practising architect and of his assistants."

POSITIVE.

Colour Schemes for Schools.

The Liverpool Education Committee has decided that their schools shall be decorated in bright colour schemes, not only inside the classrooms but also on the outside of the school buildings. It is hoped that by this means the lives and working hours of the pupils will be brightened and better school work will result.

Matching Green, Essex.

(*See page* 262.)

SOCIETIES AND INSTITUTIONS

LEEDS AND WEST YORKSHIRE ARCHITECTS.

COL. A. E. KIRK, O.B.E., A.R.I.B.A., presided at a meeting of the Leeds and West Yorkshire Architectural Society on February 1, when a debate was held on the question —"Is Architecture an Art or a Business?"

The view that architecture is an art was taken by Mr. F. W. H. Allison, A.R.I.B.A., who contended that art was an operation embodying something previously received through the imagination and then realised by —in this particular case—materials. A building must not only fulfil the requirements it is intended to serve, but it must do so with a high consideration of the qualities of beauty and harmony. Taking the other view, Mr. Victor Bain, A.R.I.B.A., asserted that the architect of to-day required exceptional business qualifications, together with a specialised knowledge of modern engineering and sanitation. He must also have some knowledge of the law, and be an actuary and welfare expert.

After an exceedingly interesting discussion, in which, among others, Messrs. W. Alban Jones, J. H. Addison, W. Whitehead, and F. Chippendale took part, the meeting decided that architecture was essentially an art.

NORTHERN ARCHITECTS' DINNER.

The annual dinner of the Northern Architectural Association was held on Friday last at Tilley's Restaurant, Newcastle. The President, Mr. J. H. Martindale, F.S.A., was in the chair, and among those present were Mr. Walter Tapper, A.R.A., P.R.I.B.A., the Rt. Hon. the Lord Mayor of Newcastle, Alderman Stephen Easten, the Rt. Rev. the Lord Bishop of Durham, Mr. Ian MacAlister, M.A., Mr. T. H. Rae, F.S.I., Capt. G. V. Scott, Messrs. E. G. Harvey, T. R. Milburn, Wm. Milburn, A. K. Tasker, R. Burns Dick, C. S. Errington, W. T. Jones, F.S.A., Col. G. E. Reavell, Messrs. Wm. Milburn, Junr., J. P. Allen, F.S.I., G. E. Charlewood, and Mr. R. N. Mackellar, hon. secretary.

The loyal toasts being honoured, the toast of "The Municipal Authorities of the Provinces" was proposed by the chairman, Mr. J. H. Martindale, F.S.A., and the Lord Mayor, replying, said there was undoubtedly a big responsibility resting upon both builders and architects in municipal work that would be for the public welfare. He was sure, however, that all were doing their best in this respect. Mr. T. R. Milburn, F.R.I.B.A., Past President of the Northern Architectural Association and Allied Societies' Conference, also responded.

The Bishop of Durham, Dr. Hensley Henson, in proposing the toast of the "R.I.B.A.," said their Institute was an eminently practical body. They were the "Father Confessors" to the State on all questions of architecture. A new demand was now being made in all directions upon the architects that they should help in preserving all our great historic buildings. One building that needed preservation was that magnificent structure, Durham Castle, which was at present in a position of grave and imminent risk. No doubt the people of the north would realise the heavy task involved in saving that great building, and also that man could render no greater service in this modern community than by seeing that the great gifts of the past were secure and did not suffer. By so doing they were preserving great benefits for the community. A great new sphere in which the architect was called upon to render social service of the highest quality was in the direction of town planning, for the health and dignity of the people the architect's ministry was indispensable.

Referring to the Bishop's remarks with regard to Durham Castle, Mr. Walter Tapper, A.R.A., who replied to the toast, said that it was the imperative duty of the whole nation to see that this building was preserved for future generations. Those who had been deputed to report on the condition of the castle had stated that it was in a perilous state, and he was surprised that nothing had been done with regard to its preservation. He believed that if a further public appeal was made for money in order to put the building in a proper repair, that money would be forthcoming.

"Our Guests" was proposed by Mr. R. Burns Dick, F.R.I.B.A., and the toast was responded to by Sir Joseph Reed.

SOUTH WALES ARCHITECTS.

The annual smoking concert organised by the South Wales Institute of Architects, Central (Cardiff) Branch, was held on February 2 in the Dormie Café, Queen-street, Cardiff. Like the similar concerts held in previous years, this function proved to be a remarkable success as a means of providing social intercourse for the members, particularly those of the associate and student classes. Mr. J. Llewellin Smith, L.R.I.B.A., chairman of the Central Branch, presided during the first part of the meeting, being followed in this position by Mr. T. Alwyn Lloyd, F.R.I.B.A. The company included Mr. C. S. Thomas, F.R.I.B.A., Mr. Ivor Jones, A.R.I.B.A., Mr. Percy Thomas, F.R.I.B.A., Mr. C. F. Ward, F.R.I.B.A., Mr. Harry Teather, F.R.I.B.A., Mr. R. H. Winder, M.A., A.R.I.B.A., Lieut.-Col. E. H. Fawckner, F.R.I.B.A., Mr. Horace Jones, L.R.I.B.A., Mr. D. Pugh Jones, F.R.I.B.A., Mr. Williamson. An excellent musical programme was arranged by Mr. F. Stibbs.

MEETINGS

FRIDAY, *February* 10.

Town-Planning Institute. Professor S. D. Adshead on "Town-Planning Education." 6 p.m.

Illuminating Engineering Society. Annual Dinner.

MONDAY, *February* 13.

Institute of Builders. Capt. W. T Creswell on "Building Contracts and Sub-Contracts." Liverpool. 6 p.m.

TUESDAY, *February* 14.

Institution of Electrical Engineers. Mr. D. S. Munro on "Modern Electric Wiring." At the Royal Technical College, Glasgow. 7.30 p.m.

Institution of Electrical Engineers (North Eastern Centre). Annual Dinner. At the Central Station Hotel, Newcastle-on-Tyne. 7 p.m.

WEDNESDAY, *February* 15.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher on "The Mediæval Period: Monasteries, Cathedrals, Churches." 6 p.m.

Royal Institute of British Architects. Sir E. Owen Williams on "Bridges." 8 p.m.

Edinburgh Architectural Association. Mr. J. R. Sutherland on "Heraldry." 8 p.m.

Institution of Heating and Ventilating Engineers. Annual General Meeting. At Holborn Restaurant. 2.30 p.m.

Birmingham and Midland Institute Scientific Society. Mr. A. J. G. Smout on "Story of Copper." 7.30 p.m.

THURSDAY, *February* 16.

Society of Antiquaries. Messrs. Myres and Hawkes on "Excavations on St. Catherine's Hill, Winchester." 8.30 p.m.

Institution of Structural Engineers. Professor C. Batho on "Distribution of Stress in Certain Structural Members and Connections." At the Chamber of Commerce, Birmingham. 7 p.m.

Institution of Electrical Engineers. Mr. D. S. Munro on "Modern Electric Wiring, particularly as applied to Small Houses." 6 p.m.

FRIDAY, *February* 17.

London Society. Dr. M. Wheeler on "First City of London." 5 p.m.

Glasgow Architectural Craftsmen's Society. Discussion on "Plywood and its Uses." 7.45 p.m.

R.I.B.A.

Architectural Lectures for Building Trades' Workers.

An illustrated lecture on Architecture for workers in the building trades was held at the R.I.B.A., 9, Conduit-street, W.1, on Wednesday, February 1. Mr. C. H. B. Quennell, F.R.I.B.A., dealt with the subject of "House Building through the Centuries," and illustrated his remarks by some very interesting lantern slides. The lecture was well attended, and at the conclusion of Mr. Quennell's talk a short discussion took place. On Wednesday, February 15, at 8 p.m., Sir E. Owen Williams, K.B.E., will deliver a lecture on the subject of "Bridges."

Studentship of the R.I.B.A.

The attention of all students of the R.I.B.A. is drawn to the decision of the Council that students R.I.B.A. shall only hold the studentship as long as they are bona-fide students of architecture and not engaged in other occupations

Following are notes from the minutes of the Council for January 9:—

Christmas Holiday Lectures for Children.—The President reported that the three lectures to children given by Mr. and Mrs. Quennell during the Christmas holidays had been very successful and well attended, and, on his proposition, a very cordial vote of thanks was passed in favour of Mr. and Mrs. Quennell.

Exhibition of the Alfred Stevens Drawings.—It was decided to hold in the Galleries from February 27 to March 8 an exhibition of the Alfred Stevens drawings recently presented to the Institute by Mr. Sigismund Goetze.

R.I.B.A. Prizes and Studentships.—The Council approved the annual award of R.I.B.A. Prizes and Studentships submitted by the Board of Architectural Education.

The Annual Dinner, 1928.—It was decided to hold the next annual dinner in April. Detailed particulars will be issued at an early date.

List of Official and other Publications.—The Board of Architectural Education reported that they had had under consideration the need for technical information relating to designs for specific buildings, and a list of official and other publications compiled in this connection was submitted to the Council and approved for publication in the R.I.B.A. Kalendar.

The University of London Architectural Education Committee.—Mr. H. M. Fletcher, chairman, and Mr. L. Sylvester Sullivan, vice-chairman, of the Board of Architectural Education, were nominated to represent the R.I.B.A. on the University of London Architectural Education Committee for the year commencing March 1, 1928.

Memorial to the late Dr. P. J. H. Cuypers.—It was decided to give a donation of £10 10s. towards the fund for the memorial proposed to be erected at Ruremonde, Holland, to the memory of the late Dr. P. J. H. Cuypers (Royal Gold Medallist, 1897).

World Engineering Congress, Tokio, Japan.—Dr. A. Kogure (hon. corresponding member) was appointed to represent the R.I.B.A. at the "World Engineering Congress" which the Engineering Society of Japan will hold in Tokio in October, 1929.

Membership.—Applications for membership were approved as follows:—

As Fellows: 14 applications.
As Associates: 8 applications.
As Hon. Associates: 2 applications.

Retired Fellowship.—The following members were transferred to the Retired Fellowship:—Thomas Charles Agutter, Samuel James Newman.

Application for Election as Licentiate under Section III (f) of the Supplemental Charter of 1925.—One application was approved.

CARDIFF ARCHITECTURAL STUDENTS

THE annual prize distribution in connection with the South Wales Institute of Architects, Central (Cardiff) Branch, and the Department of Architecture and Civic Design, at the Technical College, Cardiff, took place on Thursday, February 2, when the chair was taken by Mr. J. Llewellin Smith, L.R.I.B.A., Chairman of the South Wales Institute of Architects, Central (Cardiff) Branch, supported by the Deputy Lord Mayor (Councillor W. G. Howell), Mr. C. S. Thomas, F.R.I.B.A., President of the South Wales Institute of Architects, Mr. Percy Thomas, V.-P.R.I.B.A., Messrs. Ivor Jones, A.R.I.B.A., Harry Teather, F.R.I.B.A., C. F. Ward, F.R.I.B.A., Dr. Cyril Fox, Principal Charles Coles, B.Sc., Mr. J. E. Turner, J.P., Alderman William Grey, J.P., and Councillor I. G. Duddridge.

Mr. Llewellin Smith, in his opening address, said that the Exhibition of Students' Work showed clearly that the work of the School was on sound lines, and that it reached a particularly high standard. Mr. W. S. Purchon, M.A., A.R.I.B.A., Head of the Department of Architecture and Civic Design in the College, presented his Annual Report, which indicated that the past year had been one of steadily maintained progress. Of the principal successes which had been gained by the students of the School, he mentioned the following :—

In the Rome Scholarship Competition, Mr. J. B. Wride not only reached the final stage, but he did so well in it that he is permitted to proceed direct to the final round this year. He was the only provincially trained candidate in any of the arts who received commendation in the final round of this competition. Two other candidates from this School, Mr. P. G. Budgen and Mr. Leonard Monroe, were admitted to the first round this year. In the R.I.B.A. Alfred Bossom Travelling Studentship, Mr. B. W. R. Thomas, A.R.I.B.A., won a silver medal and a certificate of honourable mention, reaching a higher place in the awards than any other provincially trained candidate. Mr. C. J. Bartlett has been awarded by the R.I.B.A. a special Fourth- and Fifth-Year Maintenance Scholarship of £100 per annum.

Mr. Purchon also drew attention to the fact that, while these successes had been achieved, the students had had to work under considerable difficulties in cramped accommodation. These difficulties have now been removed in a considerable measure in the new studios, etc., which are now in use by the Department of Architecture and Civic Design. The Deputy Lord Mayor distributed the prizes, and in the course of a striking address drew attention to the very close relationship between architecture and public health. He congratulated the staff and students of the School of Architecture on their excellent year's work. At the close of the prize distribution the new accommodation for the School of Architecture was inspected.

The list of prizes follows :—

DEPARTMENT OF ARCHITECTURE AND CIVIC DESIGN PRIZES, CERTIFICATES AND DIPLOMAS, SESSION 1926-27.

The Lord Mayor's Prize for Architectural Construction, £2 2s. Presented by Alderman Wm. Grey, J.P. : Cyril L. Bugler.

President's Prize for First-Year Students, £3 3s. Presented by Mr. C. S. Thomas, F.R.I.B.A. : Wm. H. Maton.

Second Prize for First-Year Students. Presented by Head of the Architecture and Civic Design Department : Hubert J. Hughes.

The Fifth-Year Thesis Prize, £2 2s. Presented by Mr. T. Alwyn Lloyd, F.R.I.B.A. : Hy. H. A. Bull.

The Prize for Draughtsmanship, £2 2s. Presented by Mr. Percy Thomas, F.R.I.B.A. : Francis K. Aitken.

The Architectural Sketching Prize, £2 2s. Presented by Mr. H. Teather, F.R.I.B.A. : Francis K. Aitken.

The Essay Prize, £2 2s. Presented by the Architectural Press, Ltd. : Francis K. Aitken.

The Sketch Design Prize, £2 2s. Presented by Mr. H. Budgen, F.R.I.B.A. : Percy G. Budgen.

The Batsford Prize for Architectural History and Theory of Design, £2 2s. Presented by Messrs. B. T. Batsford, Ltd. : Cyril J. Bartlett.

CERTIFICATE IN ARCHITECTURE (CARRYING WITH IT EXEMPTION FROM THE R.I.B.A. INTERMEDIATE EXAMINATION) :

Olwen E. Price, Cyril J. Bartlett, Cyril L. Bugler.

DIPLOMA IN ARCHITECTURE (CARRYING WITH IT, UNDER SPECIAL REGULATIONS, EXEMPTION FROM THE R.I.B.A. FINAL EXAMINATION, WITH THE EXCEPTION OF THE SUBJECT PROFESSIONAL PRACTICE) :

David J. Williams.

THE SOUTH WALES INSTITUTE OF ARCHITECTS, CENTRAL (CARDIFF) BRANCH PRIZES, SESSION 1926-27.

Design, Third Year, £2 2s. : Cyril L. Bugler.

Design, Second Year, £3 3s. : John W. Bishop.

Design, Second Year, £2 2s. : Carl A. E. Thatcher.

Design, Atelier, £2 2s. David J. Williams.

Measured Drawings Prizes—£3 3s. : John W. Bishop; £2 2s. : Carl A. E. Thatcher.

THE MASTER CARVERS' ASSOCIATION ANNUAL DINNER

THE annual dinner of this Association was held at the Connaught Rooms on Tuesday last week. The chair was taken by the President, Mr. William Aumonier. Among those present were Sir Reginald Blomfield, R.A.; Mr. Walter Tapper, P.R.I.B.A.; Mr. Arthur Keen, F.R.I.B.A.; Mr. F. R. Yerbury, secretary, Architectural Association; Mr. Ian McAlister, secretary, R.I.B.A.; Mr. C. F. A. Voysey; Mr. Alfred Bossom, F.R.I.B.A.; Col. Dixon Spain, F.R.I.B.A.; Mr. T. S. Tait, F.R.I.B.A.; Mr. Winton Newman, F.R.I.B.A.; Mr Hubert Lidbetter, F.R.I.B.A.; Mr. Geoffrey Lucas, F.R.I.B.A.; Mr. C. G. Hone; Mr. Gilbert Bayes; Mr. Laurence R Turner, F.S.A.; Mr. Arthur May; Mr. Walter Gilbert; Mr. Lionel Pearson, F.R.I.B.A.; Mr. Douglas Tanner, A.R.I.B.A.; Mr. C. St. Leger, A.R.I.B.A.; Mr. H. S. Fleming, A.R.I.B.A.; Mr. R. S. Cockrill, A.R.I.B.A.; Mr. Stanley Wharton, President, London Cabinet and Upholstery Trades Federation; Mr W. T. Plume; Mr. W. J. Wills, and others.

Following the toast of "The King," Sir Reginald Blomfield, R.A., proposing the toast of the Master Carvers' Association, said in his younger days sculpture seemed to him the finest of the arts, and had he not wrestled with architecture for what was now the greater part of his life, he would like to have been a sculptor. There was or should be between the art of architecture and that of sculpture and carving a connection which he regretted to say in the course of history had got looser and looser, till those arts were now almost strangers. The further one went back in history the more one found the chisel paramount. From the first scratchings in prehistoric caves, in the splendid sculpture of Egypt and Assyria, of Greece and the Hellenistic artists of Asia Minor, in the trophies of Roman triumphal arches, in the wonderful friezes and capitals and panels of Romanesque churches, such as S. Gilles and S. Trophimes at Arles, it was the man who cut the marble or stone that was pre-eminent, and his carving was inseparably connected with the design of the building on which he worked. Though with less sense of style, the Mediæval artist was essentially a carver—he didn't have to wait on the doorstep of some harassed architect in the hope of getting a design to work to. An age-old tradition told him what to do, and he worked this out as he went along, picking up suggestions from the actual material which he was chiselling. There were great carvers of stone and marble, Italian and French, in the Renaissance, and almost down to the birth of Neo-Gothic in the 18th century there were artists who worked freely in stone and marble—the skilful sculptors of Louis XIV. and Louis XV. at one extreme, and our own excellent stone masons at the other—but meanwhile the rift in the lute had already started. The weak part of the Italian Renaissance and its derivatives was its virtuosity, its concentration on technical excellence to the exclusion of everything else. Sculptors found that they could work far more easily and freely and obtain more striking results by modelling in clay or wax, and casting in bronze, than by punching intractable and unforgiving materials such as marble or stone, and so they tended more and more to confine themselves to their studios, attaining, it was true, most admirable skill in modelling, but forgetting that patient art which had found them in the past by far their greatest opportunities. The failure of most modern art nowadays was the fatal vice of over specialisation. The painter did not look beyond the limits of his frames, and the sculptor buried himself in his studio instead of coming out into the open where he could wed his work to architecture, instead of "investing it with artistic merit"—if he might apply a famous phrase. We did not want to lose our skilful modellers, but they should widen their outlook, and devote some of their ability to the cutting and carving of actual materials.

There was another direction in which the carver's work had fallen off to a most unfortunate extent, and that was its pretty complete ignorance of architecture—at any rate, its neglect of it. Right away down to the middle of the 18th century it was considered part of the carver's trade to know his way about in architecture. Of course artists such as Michael Angelo, Goujon or Bernini were accomplished architects as well as sculptors; indeed, whatever one might think of that most dangerous man Bernini, one was amazed at the technical ability of his architecture. But the arts had drifted so widely apart that nowadays the sculptor knew as little of architecture as the architect did of sculpture. The conclusion he came to was that while there should be no lowering of the standard of technique in the various arts, there should be a breaking down of barriers, and the arts should be brought into close touch: architecture with painting and sculpture—sculpture with cutting and carving. Their Association was a young one, but they wished it all success, and he thought the condition of that success was that they should aim at being not merely a trades union, but a band of brother artists.

The President, replying, said the art of the carver was one of the oldest arts, but it was a long step from those early days to modern Regent-street. In those early days carvers had not to submit estimates and models. He believed he was correct in saying that the late Harry Bates and Pomeroy started life as carvers, and that the late Seymour Lucas, R.A., was originally a wood carver. In his early days there were only two kinds of architecture, one covered with carving and one with none. The tendency today was to have less carving, but that of a much higher quality. The closer the bond between the architect and the craftsman the better. "The architect depended just as much on the loyalty of his craftsmen as the craftsmen depended on the moral support of the architect." Carvers might be considered an important cog in the wheel of architecture. They were members of no trades union, but strove to bring about a spirit of comradeship between master and man.

The toast of "The Visitors" was proposed by the President.

Mr. Alfred Bossom replied.

Mr. Laurence A. Turner, F.S.A., Hon. A.R.I.B.A., proposed the toast of "The President," which was seconded by Mr. Yerbury. After a short entertainment, dancing continued till midnight.

HOUSING AND THE L.C.C.

On January 9 and 10, a visit was paid by a number of Press representatives—at the invitation of Lieut.-Col. C. B. Levita, C.B.E., M.V.O., Chairman of the Housing Committee of the London County Council—to certain of the Council's housing estates and slum areas in process of reconstruction. On each day several of these estates and areas in varying parts of the London district were visited, and from them some idea of the magnitude of the operations set in motion by the County Council to supply the demand for healthier and better housing was obtained. The problem faced by the Council is not one of numbers only, and some inkling of the difficulties to be surmounted was given by Colonel Levita at luncheon on the Monday. There was little doubt, he said, that the L.C.C. were overcoming "slumdom" in some degree, but there would still be slums created in many parts of the country, notwithstanding all that was being done. Slum-dwellers in many cases were quite different from the normal inhabitants, and it was impossible to deal with them except by putting them into second-class property and letting them move up and up gradually. It was no good putting the slum-dweller into a brand-new tenement or cottage. The creation of slums was very largely a matter of mentality and of the *personnel* rather than the building, and until education of the people had improved, we would have slums created. Dealing with difficulties, from the housing point of view, presented by the continuance of the Rent Restrictions Act, Colonel Levita said that at the present moment the Council were carrying a great burden which ought never to have been put upon them. The difficulty, however, was that when the Act was relaxed, there would be a great displacement of tenants. Purely from the housing point of view, it would be better when the Rent Restrictions Act was taken off.

The Housing Estates.

On the Monday, visits were paid to the Ware-street area (Whitmore Estate), Shoreditch, where a slum reconstruction plan provides for seven blocks of five-story buildings and six blocks of four-story buildings, giving accommodation for 2,408 persons; to the Hornsey-rise Estate, Islington, which provides for three blocks of dwellings with accommodation for 1,168 persons in 188 lettings; lastly, the Watling Estate, Hendon. This site is of 390 acres, and has been given its name after the famous Watling-street, of which Edgware-road forms part. When completed, the estate will comprise about 3,980 houses, most of which will be of brick construction, but arrangements have been made to include 464 timber-framed houses and 252 "Atholl" steel houses. The ground is undulating in character and well wooded. The lay-out plan has been admirably designed to allow of the retention of most of the trees, and some of the finest of these are situated on land which will become the central open space of about 12 acres. The land (about 29 acres), bordering the banks of the Silk stream, which runs through the estate, will also be reserved as open space.

On Tuesday, visits were paid to the Prince of Wales's "Kennings Estate," at Kennington, where a scheme has been planned to provide for seven blocks of buildings. The principal rooms of each block will face a broad forecourt laid out as a garden. The first two blocks, named Calstock and Fowey Houses, are now ready, and have a most attractive appearance with their tiled Mansard roofs.

Another slum clearance, at Hickman's Folly (Dickens's Estate), Bermondsey, was inspected, where a typical example of the "gridiron" development of the mid-18th century—rows and rows of "hutches" with a total breadth of cross-section of 10 feet—is being demolished in favour of blocks of dwellings grouped, on the northern side, round an open space.

The party then left for Downham, perhaps the most delightful of all the L.C.C. estates. This estate (about 522 acres), which is situated mainly in the Metropolitan Borough of Lewisham, with a small part in Bromley, Kent, extends from Old Bromley-road and Bromley-hill in the west to the Southern Railway and Baring-road in the east, a distance of about 1¼ miles. Of the total of 522 acres, 134 acres have been reserved for open spaces, etc., 44 acres for the erection of shops, schools, churches, public buildings, etc., and the remaining 344 acres will be devoted to dwellings and roads. The estate when completed will consist of 5,932 houses and flats comprising 751 five-room houses, 1,499 four-room (parlour) houses, 1,267 four-room (non-parlour) houses, 1,983 three-room houses, 72 four-room flats, 144 three-room flats, and 216 two-room flats. Shopping facilities have been provided for by allocating land for shops in Bromley-road in the west and in Downham-way in the east, for erection by private enterprise under building agreement. The estate is served by trams and by the Southern Railway with seven stations within varying distances of the centre of the estate. There are also several omnibus services.

The final inspection made was of the Becontree, Essex, Estate. This, the largest of the Council's estates (2,770 acres), is situated beyond Barking and Ilford, between Romford-road, near Chadwell Heath, on the north, and Ripple-road on the south. It is proposed that this 2,770 acres shall be utilised approximately as follows:—375 acres for a green belt round the estate on the London side; 236 acres for large open spaces, including the area of Parsloes Park, and a site of about 30 acres for a voluntary hospital, if needed, concerning which details have yet to be settled; 40 acres for leasing for industrial purposes; 25 acres for commercial land, shop sites, etc.; 140 acres for churches and schools; and 1,770 acres for the erection of houses and the construction of roads. It is anticipated that when the estate is wholly developed it will comprise about 26,000 houses, with accommodation for about 130,000 persons, equal to the population of a town of the size of Brighton. Many of the buildings are of the usual brick construction, but concrete construction has also been adopted for a large number, the gravel for the aggregate concrete mixture being obtained on the estate.

The Planning of the Estates.

We may, perhaps, give some general observations on the L.C.C. housing schemes as a whole. Architecturally, a large measure of praise can be given. There is a sanity of lay-out and a utilisation to the utmost of all natural features to be found in all the estates. Natural vistas have been allowed to remain, and ample open spaces have been left everywhere. An important consideration is that in all the estates a garden, back and often front as well, has been allotted to each house

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L.C.C. Housing Estate, Becontree: A View from the Air.
MR. G. TOPHAM FORREST, F.R.I.B.A., Chief Architect to the Council.

or cottage. Angles of roads have been finished with angle-blocks, which have the effect of closing in from sight the gardens and drying grounds at the backs of the cottages. In nearly every case, a little "bull-nose" of green turf has been left at the apex of the angles.

The cottages themselves manage in a surprising way to avoid monotony. Naturally, there has been little or no money to spend upon architectural adornments, but by the use of a surprisingly few *motifs*, such as hoods or canopies to the doors, sometimes a round-headed arch acting as an entrance to two sections of a cottage, coloured rough-cast and blue, light green, and other coloured doors, a variety of types of cottages have been obtained. The roads are wide, and the inside edge of the pavements will be planted with hedges. The materials used in the brick houses are mainly French stocks with Courtrai-du-Nord tiles, although in some cases thin Dutch bricks have been used with effect, or else Flettons and flat English tiles, these last being principally in the main roads. Besides the brick, a number of other types of cottages have been erected, timber-frame, Weir and Atholl steel houses, concrete, breeze-block, rough-cast, etc.

The interiors of the cottages or tenements are also very satisfactory. The usual accommodation is a living-room—which in many cases has a combination fire and oven—and two bedrooms. A bathroom and w.c., together with a small scullery containing a gas stove, are also included, and the whole is self-contained. The number of rooms, of course, varies, and we learn that at Becontree, for instance, the authorities are open to provide two and three-room flats, and houses of three, four or five, and a few of six, rooms. All the estates have been provided with shopping facilities, and are well served by trains, trams or buses, while sites have been reserved for churches, public halls, cinemas, public-houses, etc. Our survey of these estates and clearances has left us with a much fuller conception of the magnitude of the task undertaken by the L.C.C.

Details of the Council's housing schemes are interesting. As distinct from slum clearance and reconstruction the figures are as follows :

Estate.	Area. Acres.	Houses to be erected.	Houses erected up to Dec. 31. 1927.
Old Oak (Hammersmith) ..	32	736	736
Norbury (Croydon)	11	218	218
Roehampton (Wandsworth)	147	1,212	1,212
Bellingham (Lewisham) ..	200	2,124	2,096
White Hart Lane (Tottenham)	98	1,237	1,237
Becontree (Essex)	2,770	26,000	12,131
Downham (Lewisham and Bromley)	522	5,932	3,225
Castelnau (Barnes)	50	643	101
Watling (Hendon)	390	3,980	1,373
Wormholt (Hammersmith)	68	771	353
St. Helier (Surrey)	843	8,000	—
	5,131	50,853	22,682

The following are particulars of the schemes now in hand for the clearance and reconstruction of unhealthy areas :—

Name of area.	Size of area. Acres.	Persons displaced.	Persons to be housed within the area.
Tabard-st., Southwark .. Grotto-pl., Southwark .. Crosby-row, Bermondsey ..	18¼	4,552	2,988
Brady-st., Bethnal Green ..	7½	1,875	1,600
Ware-st., Shoreditch ..	8½	2,648	2,408
Hickman's-folly, Bermondsey	6	1,645	1,372
Bell-la., Stepney .. .. Ellen-st., Stepney	5¾	1,705	954
Bruson-st., Stepney	8¼	2,601	1,394
Baker's-alley, Poplar .. Birchfield-st., Poplar .. Bromley-place, Poplar ..	2¾	740	190
George's-rd., Islington .. Brand-st., Islington	4¾	1,320	1,032
Watergate-st., Deptford and Greenwich	7¼	1,927	3,000
China-walk, Lambeth .. Hatfield-pl., Southwark .. Hankey-pl., Southwark .. Wyndham-rd., Camberwell	10¾	3,241	2,200
Ossulston-st., St. Pancras ..	8	2,700	3,054
Basing-pl., Camberwell .. Blue Anchor-la., Camberwell	3	758	756
Carlisle-st., St. Marylebone	7	2,832	2,400
Total	98	28,544	23,348

LEGAL QUESTIONS WE HAVE BEEN ASKED—V

By W. T. CRESWELL, Barrister-at-Law, L.R.I.B.A., Associate (late Fellow) Surveyors' Institution, etc.

CAN AN ARCHITECT DELEGATE HIS AUTHORITY?

In a previous article it was stated that the architect is the recognised agent of the employer and that his position in relation to a building contract is mainly governed by the law of agency. Now theoretically no delegation of agency is allowable unless there is some proviso expressed in, or that can be implied from, the agreement made between the agent and his principal. Delegation here, of course, means the handing over of authority and responsibility. But there are recognised exceptions to this rule; for instance, sanction of custom in any particular profession or calling may allow an agent to delegate; or again, if an agent is faced with the necessity of transacting business at a great distance, or in another country, he may delegate to another for convenience in the interests of the business and his principal.

Sub-Agent.

If an agent delegates in an instance where delegation is allowable and proper, the sub-agent becomes the agent of the principal and is in all respects accountable to him. Also in this circumstance, the agent first appointed is only liable to the principal for any negligence of his in choosing the sub-agent. He is at no time liable for the fraud or negligence of the sub-agent if he can show that he had reason to feel confidence in the latter or that he was the best person available and reasonably skilful.

Architects' Duties Do Not Allow of Delegation.

However, there is no recognised custom or necessity which permits an architect to delegate to another; nor is permission to do so to be implied from any usual contract between him and his employer. Indeed his duties are distinctly and specially personal and of so exacting a nature that although he may, and customarily does, employ *subordinates* or assistants, nevertheless he cannot actually delegate to them; that is to say, he is himself responsible to the employer for the actions of such persons, and must supervise the work, forming his own judgments thereon, and controlling the work to its conclusion. The architect is then the agent of the employer, for *all purposes* within the limitations of the contract between the employer and the contractor.

Limitation of Authority.

If at any later time his authority is further limited or extended by the employer, then the contractor must be informed regarding such limitation or extension. In Betts v. Pickford (1906), 75 L. J. Ch. 483, where an architect who was supervising the erection of a warehouse, permitted roof timbers and stanchions from an adjacent building, also in course of erection, to be inserted into the structure of the said warehouse building, and it was held that in so doing he had exceeded his authority. Kekewich J said: "What is within the scope of an architect's authority I am not called upon to say, but I will say this much, that I apprehend his authority is strictly limited by the nature of his employment, that is to say, as defined by any letters or agreement constituting his employment." Where an architect's authority is further limited in the manner described and piecemeal directions are given to him by the employer from time to time, the result is that he becomes a mere agent carrying out the employer's directions. In this position his liability to the employer in respect to the amount and degree of skill which as an architect he is bound in the ordinary conduct of his professional duties to exercise is lessened and modified.

Cannot Delegate to a Clerk of Works.

An architect in his position as agent cannot delegate his authority to a clerk of works or foreman, whether the latter is appointed by the employer or by the architect. He may and does in practice rely on the clerk of works in minor details; but effectually he is bound to give his personal supervision to the work, according to the terms of the contract documents; that is to say, he must be prepared to meet vicariously a charge of personal negligence if the clerk of works makes mistakes of omission or commission.

In the Leicester Board of Guardians v. Trollope (1911, 75 J.P. 197), defendant as architect was employed to supervise the erection of a large infirmary under a building contract. A clerk of works was appointed by the employers, and he permitted the contractor to deviate from the work as defined in the contract documents. Four years after completion dry rot set in, in floors laid over concrete. It was alleged that the defendant did not *see* the concrete properly laid in accordance with the contract. The Board agreed not to sue the defendant for negligence on his agreeing to remedy these defects. He subsequently, finding the expense great, did not fulfil his agreement, and the Board sued him for negligence. He, however, alleged that it was not his duty to supervise the laying of concrete, but that of the clerk of works appointed by the employers, and he counterclaimed for damages from plaintiffs, alleging that there had been on their side a breach of an implied contract by their having appointed an incompetent clerk of works. It was held that the defendant was liable to the employers for negligence.

Certificates.

Unless otherwise prescribed in the contract, a certificate must be certified by the architect himself, though he may with discretion and within reason delegate a competent assistant to take measurements for his calculations of the amount to be certified.

Architect as Arbitrator or Quasi-Arbitrator.

An architect acting as an arbitrator or quasi-arbitrator must not delegate his authority except with the consent of all the parties to the submission. He can ask the opinion of another person on any legal or technical point arising out of the submission; but if he makes use of such an opinion, it must be after he has adopted it as his own. He can call on a legal adviser, who may also be present to give assistance at the reference. He may, and very often does, obtain legal assistance to help him in framing the award.

The arbitrator can delegate the performance of some ministerial act, such as taking measurements of land or property, and the ascertainment of costs, though it is not easy to determine what can be included under the head of "ministerial acts." (See Thorp v. Cole, 1835, 2 C.M. and R. 367.)

Building Activities at Cape Town.

His Majesty's Senior Trade Commissioner in South Africa (Mr. N. Elmslie) has written to the Department of Overseas Trade drawing attention to various building activities at Cape Town which it is thought may be of interest to British firms as offering possible openings for the supply of fittings, furnishing appliances, etc. In October 270 building plans, valued at £294,055 were passed by the City Council. These included a plan for what is claimed will be the biggest and most modern hotel in South Africa. The hotel is to be built on the site of Poole's Hotel in Queen Victoria-street, and will extend to Keerom-street. It will be eight stories high and will cost £70,000.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting?—ED.

Standard Sizes of Bricks.

[REPLIES TO "BRICKS," JANUARY 27.]

SIR,—I think the difficulty of increasing the length and decreasing the thickness of bricks would be the increased liability of breakage in handling. Even now, where common bricks are tipped instead of man-handled, there is a fair proportion of breakages, and if the bricks were longer and thinner there are probably few bricks that would come out of the ordeal in one piece, except with great care in handling, which makes for greater cost STANDARD.

SIR,—The suggestion to make 2 in. bricks much longer than the 9 in., which is the standard, in order that the bricklayer should be beguiled into a greater output, is not practicable, because it would then be necessary to increase their width, so that the two header ends, plus a mortar joint, would be equal to the lengthened stretcher. The present width of approximately 4⅜ in. is as much as the hand of the average bricklayer can comfortably grasp. If you make his work uncomfortable, a man's output will suffer, without any conscious slacking off on his part. There are many other reasons why this suggestion is not workable. The thicknesses of walls and many other correlated items of building construction are based upon the unit sizes of standardised bricks, and all of these would be upset.

L. EDMUND WALKER.

Artificial Marbles.

[REPLY TO "ECONOMY," JANUARY 27.]

SIR,—I have recently been introduced to a reconstructed marble which appears to fit exactly your correspondent's requirements, and particulars of which I should be pleased to send him. The product treats ordinary limestone in exactly the way in which Nature treats limestone to make it marble, viz., by exerting enormous pressure upon it; for the difference between limestone and marble is little more than one of density. This therefore differs from most similar substitutes in that there is no cement used, and it has the same consistency all through. PLEASED.

Damp Stains on Inside Wall.

SIR,—The cause of the stains probably arises from absence of a dampcourse in the chimney. Ordinary cement rendering is not perfectly watertight, and the absence of normal heat in the flues allows the damp to penetrate. Would it be feasible to lower the chimney to just above roof line, with vent gratings out for the gas flues, and at the same time take advantage of the circumstances by putting slate courses under the new coping? INTERPOSE.

Door Construction.

[REPLY TO "19TH CENTURY," JANUARY 27.]

SIR,—The accuracy of machine work permits of an exact incidence between the dowels and the holes in the stiles and rails for them, and it is probable that the door so constructed is far more perfectly fitted than the tenoned door, which needs often a lot of easing before it approaches perfection. If a good class of dowelled door is selected there should be no fear of shrinkage, but with an inferior article, of course, anything can happen. 20TH CENTURY.

Removal of Refuse.

SIR,—I am now engaged upon the R.I.B.A. Final Examination testimonies of study and would be glad to know the customary London procedure as to the facilities provided to enable the periodic removal of refuse from blocks of flats for housing schemes. Is each tenant expected to bring the refuse down to the ground floor and deposit it in bins supplied for that purpose? Or is it possible to construct, say, a refuse flue (1 ft. 6 in. by 1 ft. 10½ in. approx.), lined with glazed bricks internally and carried up the full height of the building and thus serving each kitchen? Provided the latter is capable of adequate ventilation, would it be allowed by the L.C.C.?

PERPLEXED PROVINCIAL STUDENT R.I.B.A.

Measuring Openings.

[REPLY TO "ABSTRACT," JANUARY 27.]

SIR,—In the Scottish mode of measurement brick walls are billed by the super. yard, and forming check and plumbings. Fireplaces classed according to number of bricks in thickness. The daylight size of all through openings is deducted, but no deduction is made for concrete or stone sills and lintels. Reveals at doors and windows are measured by the lineal foot, and price includes for 5 ft. and under in width, and flues under 2 ft. in sectional area are not deducted. Fireplaces are numbered for formation.

ARCH. WELSH.

Contract Question.

[REPLY TO "CONSTANT READER," FEBRUARY 3.]

SIR,—In a building contract, ordinarily in equity, time is not of the essence of the contract—even though the time for the completion of the contract be specified. From the particulars furnished, it is clear that "extras" have been carried out by the contractor; and if they have been ordered under the terms of the contract, then the time for completion is implicitly extended, but the contractor is entitled to additional time in accordance with the amount of extra work involved.

It is only when the contract specially stipulates that time is an essential factor, and that no extension is to be allowed for any extra work, that the above rule would not hold. See Chap. VI., Creswell on Building Contracts. LAW.

SIR,—The contractor has undertaken to perform certain work expressed in the original contract, and to complete same within a specified time. Where delay has occurred by reason of the performance of extra work, or variations on the original contract, ordered by the architect, a reasonable extension of the contract period should be allowed to the contractor, to cover the extra time involved in the execution of such work, or variations.

A. SHARPLESS.

A Rent Restriction Problem.

SIR,—A small semi-detached villa has been occupied by the same tenant since pre-war days, when the rent was £18 per annum. The landlord is a very old gentleman of kindly disposition who has little or no knowledge of the Acts, and it transpires that since about 1922 he has been accepting £22 12s. per annum rent. His income from other sources has fallen to such an extent that he now wants to get as much income from his property as the law allows. What can he raise it to? Can he get the tenant out now or soon? RICHARD ANDERTON

Testing "Made" Ground.

[REPLY TO "J. R. G.," FEBRUARY 3.]

SIR,—There are various ways of forming a platform for a loading test on ground, but I believe the most satisfactory and reliable way is to make a reinforced concrete platform 10 ft. square. On this can be stacked bricks when they come on to the job, and the load of which can be controlled and easily measured. The usual indicators may be applied for subsidence. The platform makes a useful banker afterwards, if suitably placed. C. of W.

BOOK REVIEW

The Workmen's Compensation Acts.

The Workmen's Compensation Acts, 1925 and 1926, with Notes, Rules, Orders, and Regulations. By W. ADDINGTON WILLIS, C.B.E., LL.B. London: Butterworth & Co. 1927-8. 15s. net.

It is hardly necessary to say more of this standard work, now in its twenty-fifth edition, than to announce that it is published. In a note at the end of the preface the author states that this edition contains references to 2,229 cases, and, as we remarked in the notice of the last edition, the consolidation of the statutes does not enable the older cases to be dispensed with as the new Act of 1925 does not apply to any case where the accident happened before January 1, 1924.

It will be seen that on the title-page this edition is described as "The Workmen's Compensation Acts, 1925 and 1926." The Act of 1926 consists of one section, besides that giving its short title, and as we explained in our issue December 3, 1926, it was passed to remedy a hardship which was experienced under section 11, subsection (2) of the Act of 1925, which repeated a provision contained in the Act of 1923. That subsection gives a special rate of compensation on review to workmen who at the date of the accident were under 21 years of age, but the review had to take place more than six months after the accident *and* before the workman attained 21 years. In Briggs *v.* Thomas Dryden (1925, 2 K.B. 667; *The Builder*, August 28, 1925) it was found that this double condition could not always be complied with, as in that case the review could not be held before the workman attained 21 years of age, and he was relegated to the remedy provided by the Act of 1906, and the new Act to remedy this grievance now provides that the review can be made "before or within six months after the workman attains the age of 21 years." This question will be found fully dealt with at pages 242, 243 of the present volume.

The author in his preface calls attention to some of the cases which have been decided since his last edition, but we may direct his readers' attention to the addenda which are inserted immediately after the Table of Cases and which contain the decisions reported whilst the edition was passing through the press, as this might be overlooked. With this addenda the author states this edition comprises all the decisions reported down to July 16, 1927. "Good wine needs no bush," and this saying applies to the work before us which for twenty years—the first edition appeared August 31, 1897—has proved its own worth.

In that year (1897) the legislature set out to devise a much-needed scheme for compensating workmen for accidents in certain employments, and it was asserted at the time that the Act was to provide rustic justice to a class of persons who should obtain redress by simple methods. The scope of the Acts has in the intervening years been extended, but from the very first they proved a source of litigation, and the present edition of this work is a silent commentary on the effect of an attempt to institute a system of rustic justice, as it shows that at the present time in order to give a guide to the Acts it is necessary to retain 2,229 decisions of the Courts upon their provisions. The costs involved in these cases, many of which had to be carried to the House of Lords, are an unproductive expenditure, and this appears to us a point to be remembered by the Legislature in these days when what may be termed domestic legislation is so much resorted to. The Rent Restriction Acts afford another example of legislation which in the interests of a particular class has "fattened the lawyers," and we are going in the same direction now with legislation which interferes with freedom of contract between landlord and tenant, not in a statute passed for an emergency as a temporary expedient, but in the form of permanent legislation.

THE BUILDING TRADE

WHAT IS A "SINGLE PRIVATE DRAIN"?

RECENT inquiries from correspondents show that considerable doubt still exists as to what is "a single private drain" within the meaning of section 19, subsection (1) of the Public Health Acts Amendment Act, 1890. This section has been the cause of a great deal of litigation in the past, resulting in very conflicting decisions, and the legislation has been the subject of much judicial criticism, but in 1908 a decision of the House of Lords in Wood Green Urban Council *v.* Joseph (1908, A.C. 419; *The Builder*, August 8, 1908) laid down certain principles which have proved of considerable assistance. Before that decision the leading authority was a decision of the Court of Appeal in Thompson *v.* Eccles Corporation (1905, 1 K.B. 110) in which the Court of Appeal adopted the judgments delivered by a Divisional Court in Bradford *v.* Eastbourne Corporation (1896, 2 Q.B. 205), and it is from these three decisions that the law on the subject must be ascertained.

Section 19, subsection (1) of the Act provides "where two or more houses belonging to different owners are connected with a public sewer by a single private drain," then the provisions of section 41 of the Public Health Act, 1875, relating to nuisance from drains applies, and the local authority can call upon the owner or occupier to do the necessary work to remedy the nuisance, or in default can do the work and recover the expenses from the owner. By subsection (3) "For the purposes of this section the expression 'drain' includes a drain used for the drainage of more than one building," and by section 2 this Act is to be construed as one with the Public Health Acts.

It may be convenient here to set out the facts of the three cases. In Bradford *v.* Eastbourne Corporation there were six houses belonging to different owners which were, and had been at some date before 1890, drained into a single pipe laid in private property until it reached a road in which there was a sewer into which the drainage was discharged.

In Thompson *v.* Eccles Corporation there were two blocks of six houses each belonging to one Johnson, and under these houses there was a 6 in. pipe into which these houses each were drained; this 6 in. pipe was continued by a 9 in. pipe under the cellars of seven houses belonging to Thompson into which those houses drained, and the sewage from both sets of houses were conducted through these pipes to a main sewer. The pipes, until they reached the sewer, were laid on private property. The houses had been erected in 1875. In Wood Green Urban Council *v.* Joseph, on the east side of a road there were 16 houses in a row, six of which belonged to the respondent and the remaining ten to other owners. At the back of these houses, running parallel with the road on which they were situated, there was a line of pipes some short distance from the houses which conducted the sewage to a public sewer in a road running at right angles to that in which the houses were situated. This pipe was called *KA* in the report. The houses were drained in pairs into this pipe, which was laid almost entirely in private ground, but by whom it had been laid, and when it was laid, and with what purpose was not stated in the special case, and it may have been made even before the houses were built.

In Bradford *v.* Eastbourne Corporation the Lord Chief Justice pointed out that apart from section 19 there could not be a "private drain" which connected two or more houses in different ownership, because under the definitions of "drain" and "sewer" in the Public Health Act, 1875, any such drain would have been a sewer vested in the local authority, but in the Act of 1890 this definition was widened (see above subsection (3)), for the purposes of the section, and it takes the single private drain out of the definition of "sewer," but only for the purposes of this section.

He then pointed out that as the word used in subsection (1) is "are" and not "shall be" connected, this negatived the contention that the section only applied where the drain was constructed after the passing of the Act! The Act was retrospective, and divests the local authority of the duty laid upon them by section 13 of the Public Health Act, 1875, for the vesting under that section is not the conferring of absolute property but only such ownership or right as is necessary for the performance of the duty. We have referred especially to this point as we have recently been asked by a correspondent if the principle "once a sewer always a sewer" applies to a single private drain under this section, and the answer is here given in the negative.

Then the Court defined a "private drain" serving two or more houses as that the use of which is confined to those houses and with which other houses belonging to other owners could not be connected without the consent of the person through whose land the pipe runs, as distinguished from a public sewer which serves the public generally and can have any indefinite number of houses connected with it either directly or because branch sewers come into it, and this pipe was held to be a "single private drain."

This case was approved and followed in Thompson *v.* Eccles Corporation, and it is unnecessary to refer to the judgments delivered in the Court of Appeal as the same reasoning was adopted, but we may mention some interesting observations of Lord Justice Mathew on the origin of section 19, as they are instructive. He pointed out that under the Public Health Act, 1875, a local authority could insist that each owner of a building should have a separate drain connected with the public sewer (he should have added or with a cesspool). This was inconvenient to building owners, and no doubt the local authorities were approached to permit the owner of several houses to construct a common drain to carry off the sewage to the sewer and this would be done by agreement. When, however, the houses were sold to different owners, difficulties arose, for the local authorities were without the protection they had when the houses were all in one ownership, and from this point of view the section became intelligible, for its effect is as to each separate owner to treat a drain common to the land of several owners as if it were a series of drains each of which was in the land of a single owner. We have referred in the first place to these two cases because they have to be considered in the light of the decision of the House of Lords in Wood Green Urban Council *v.* Joseph.

In that case the Divisional Court had held that the drain in question was not a single private drain, and the Court of Appeal had upheld that decision, but upon another ground, that as the houses were connected in pairs with the pipe *K A*, these connections with that pipe were sewers, and thus the pipe *K A* did not connect the houses with the sewer, because these "sewers" intervened between the houses and the pipe. This view was not accepted in the House of Lords, except by Lord Ashbourne.

The judgment concurred in by the House was delivered by Lord Atkinson, and in that judgment the scheme of the Public Health Act, 1875, was outlined. After referring to the sections which vest all sewers in local authorities, with the three exceptions mentioned in section 13 (not material to this case), and the duty laid upon local authorities to repair all sewers vested in them and to construct all sewers necessary for the effectual draining of their district (section 15), and the right of the owner or occupier of any premises within the district, under certain conditions, to cause his drains to empty into the sewers of the authority (section 21), special reference was made to sections 23 and 25.

Those two sections enable the local authority, where any house within their district is without a drain sufficient for effectual drainage, and in the case of newly erected houses, or houses that have been pulled down to the first floor and re-erected, to compel the construction of a covered drain emptying into any sewer within 100 ft. of the site of the house, or if there be no sewer within that distance, then into a cesspool. It was pointed out by the House that if the legislation had stopped there, there would have been no difficulty, for whether the owners of two or more houses in the discharge of this obligation carried the drainage from each house separately, or united them, it would have been a matter of indifference, for the conduit in question would, in ordinary language, have been a "drain," it would be "single," and it would be "private," as it would probably be situated in whole or in part on the premises of the person who constructed it; and even if not, having been constructed by him to carry off the drainage of his own house, would "belong" to his premises, and he would be obliged to keep it in order. It was pointed out that there was no objection to owners combining on a similar plan, as in that case the common conduit would most probably be situated on the premises of one or more of them, or, at all events, would "belong" to their premises, would be "single" and "private," and must be maintained by them. After pointing out the difficulties caused by the definitions of "drain" and "sewer" in the Public Health Act, 1875, it was stated that the Act of 1890 was passed to remedy one of them, namely, the case where a common conduit carried to a sewer or cesspool the drainage of two or more houses belonging to different owners, but under section 19 only such conduits were included which owners could be compelled to provide under sections 23 and 25 of the Public Health Act.

It was held that on the facts of the case before the House the conduit in question was not one to which those sections applied, or one which, irrespective of the definition, would have come within the purview of section 41, and therefore it was not a "single private drain."

We have here a guiding rule that the section only applies to those cases in which the local authority can compel an owner to make a drain either to a cesspool presumably on his own premises, or to a public sewer within 100 ft. of them.

It may be observed that in Wood Green *v.* Joseph there was no evidence as to when or by whom the conduit was made, whereas in the other two cases there was such evidence, and there seems nothing in the decisions in those two cases which would be overruled by the decision of the House of Lords, which, in the absence of litigation during the past 20 years, appears to have been fairly understood by the local authorities.

The only case since reported in the Law Reports is Kingston Corporation *v.* North-Eastern Railway (1916, 1 Ch. 31; *The Builder*, November 3, 1916). That case was decided upon a local Act which extended the provisions of section 19 of the Act of 1890 in two ways by applying that section (1) where two or more properties are in the ownership of the same person and to "premises" which, as defined by the Public Health Act, 1875,

includes lands and hereditaments. The conduit in question ran down a road which was a *cul de sac*, and of which, whether it was dedicated to the public or not, the soil was vested in the defendants. The land at each side for the whole length of the road belonged to the defendants. The pipe had been laid in 1877 by the defendants at the requisition of the local authority to take the drainage of 20 cottages of theirs, which were connected with this conduit in pairs. The conduit took the slops from the cottages and also surface water. The Court of Appeal, affirming the Court below, held that under the local Act this was a single private drain, being an exclusive and private system of drainage for the defendants' cottages laid on land vested in them, whether or not the road had been dedicated to the public. This appears the only case yet reported where the distance from the sewer into which the conduit led is given. A great part of the road was more than 100 ft. from the sewer, but the extended use of the word "premises" in the local Act may have affected this decision. Lord Justice Bankes said that the word "premises" in the local Act must be taken to mean in the same ownership as one or more of the houses connected with the private drain. As we have indicated, in section 23 of the Act of 1875 the distance to the sewer is reckoned from the site of the house, and in section 25 from some part of the site.

Only two observations remain to be made. It might seem a doubtful question whether a local Act can extend the specific provisions of a public statute, but this case affords an example, and no question appears to have been raised as to this.

A correspondent has referred to the case Attorney-General *v.* Peacock (1926, 1 Ch. 241), a case we noted in our issue, April 30, 1926, as having some bearing upon this question of single private drains, but that is not the case. No question arose in that case under section 19 of the Act of 1890 as to single private drains; the question there raised was whether, in a system of drainage adopted in 1896 on a private estate which was being developed as a seaside resort, pipes laid with the approval of the Rural District Council which carried the sewage to receptacles from which it was pumped and distributed, but with no outfall, were "sewers" within the Public Health Act, 1875, and it was held that they were sewers and vested in the local authority at dates before 1902, when the works were completed.

We may add that if a sewer is made by any person for his "own profit," it does not vest in the local authority, by reason of the first exception contained in section 13 of the Public Health Act, 1875.

EVERYDAY SCIENCE FOR ARCHITECTS AND BUILDERS—V

By A. M. GILES, B.Sc., A.I.Struct.E., A.M.I.E.E.
DIAGRAMS AND ILLUSTRATIONS BY M. R. DUMVILLE.

Air Pressure.

THE air we breathe, and which surrounds or envelopes the earth, is called the "atmosphere." It has weight, and its density is 1.29 oz. (0.08 lb.) per cubic foot, or 1.29 grammes per litre. It can therefore exert pressure, and, as in liquids, at a given point this pressure is the same in all directions. As we are, so to speak, living at the bottom of this sea of air, it is natural to conclude that the pressure on a square inch due to the air is greatest near the earth.

This air pressure of approximately 15 lb per sq. in. is quite considerable, *e.g.*, suppose the area of the surface of one's hand, which is held out horizontally with the palm upwards, is 10 sq. in., then the total pressure on the hand is 150 lb. This is rather more than would be exerted by a person weighing 10 stone, and yet you can hold out your hand quite easily. This is reasonable, because there is a pressure of the same amount acting on the under side of the hand in an upward direction. Suppose, however, that the air were removed from underneath the hand, then it would actually be supporting the dead weight of 150 lb. This is the explanation of the difficulty one experiences in trying to push a limpet off the rocks. It is also the explanation of the action of the child's toy known as the "sucker."

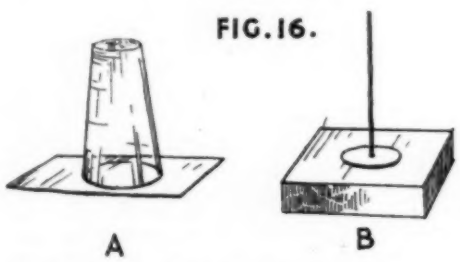
Experiment.

Take a leather disc of about 3 in. diameter and $\frac{1}{8}$ in. to $\frac{1}{4}$ in. thick. Make it soft and pliable, and then fasten to its centre a stout piece of string (Fig. 16 *B*). Then press it down with your hand, or the sole of your boot, upon the smooth surface of a piece of stone weighing 3 or 4 lb. By this means you will get rid of most of the air between the leather disc, or "sucker," and the stone, and, therefore, the "sucker" will be pressed down on to the stone with a force of 15 lb. per sq. in. You will now be able to lift the stone from the ground.

As a further illustration of the weight of the air, and therefore of its ability to exert pressure, let us look at it from the ventilation view-point. Dr. Shaw suggests that for good ventilation each person should be provided with 3,000 cu. ft. of air per hour. Now 1 cu. ft. of air weighs 0.08 lb., therefore each person would have 3,000 × 0.08 lb., which is 240 lb. per hour. An audience of 200 people would require 200 times as much, and this works out at rather more than 20 tons. Therefore, for good ventilation for an audience of 200 people there must be a supply of 20 tons of fresh air per hour.

The fact that air exerts pressure has to be remembered when dealing with such subjects

FIG. 16.



as pumps, anti-siphonage pipes, flushing systems, etc. Before going into the details of these applications, let us first consider three or four experiments, which will demonstrate the pressure exerted by air.

Experiments.

1. (Fig. 16 *A*). Take an ordinary drinking glass and fill it to the brim with water. Then place a postcard over it, at the same time taking care that no air gets in. Holding the card in position, turn the glass of water upside down, and then remove the hand from the card. The water will remain in the glass, because its weight is less than the pressure of the air upwards on the outside of the card.

2. (Fig. 17.) The crushed tin experiment is very effective in showing the pressure of air. Take any fairly large tin canister. Put its lid on, and see that it is completely sealed, with the exception of a tiny hole in the lid. Then warm it and hold the tiny hole under water. As the tin cools, a small quantity of water will be forced into it. Next place it upon a tripod and boil the water until steam is issuing freely from the hole in the lid. The steam will carry out with it most of the air from the tin, leaving inside the small quantity of boiling water, and steam above it. Remove the gas burner, and at the same time seal the hole in the lid by the soldering iron.

Then cool the tin as rapidly as possible.

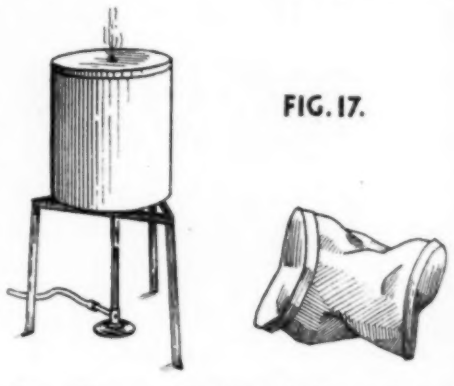


FIG. 17.

This will cause the steam inside to condense and, therefore, the pressure to be reduced to an almost negligible quantity. Suddenly, with almost explosive force, the tin will crumple up under the pressure of air outside.

3. (Fig. 18 *A*.) Take a piece of glass tubing over 30 in. long, and open at both ends. Fix it so that it is standing vertically with one end dipping into mercury contained in a basin. The air pressure upon the surface of the mercury will be the same on the outside and the inside of the tube. Now connect the upper end of the tube by a piece of thick-walled rubber tubing to an air-pump. Then gradually remove air from the tube, thereby forming a partial vacuum and consequently reducing the pressure upon the surface of the mercury on the inside of the tube. The mercury will rush up the tube, because of the pressure of the air on the mercury in the basin. The amount of air that can be withdrawn from the tube will depend upon the efficiency of the air-pump. Suppose it were possible to remove all the air from the tube, then the pressure on the surface of the mercury in the tube would be nothing, and we should find that the height of the mercury column above the surface of the mercury in the basin would be about 30 in. This column of mercury in the tube is maintained by the pressure of the air upon the surface of the mercury in the basin.

4. (Fig. 18 *B*.) In order to get rid of the air from above the mercury in the tube entirely, we adopt a slightly different method. Take a piece of glass tubing, as in the previous experiment, of just over 30 in. long. This time, let it be open at one end and closed at the other. Pour mercury into it until it is quite full, gently tapping it now and then to get rid of any air bubbles that may be trapped. Then place the finger over the open end, invert the tube, and place the open end under the surface of the mercury in the basin.

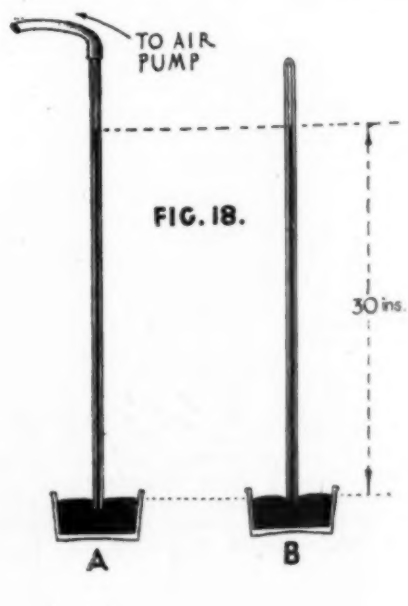


FIG. 18.

Remove the finger, when the surface of the mercury in the tube will move up and down a few times and finally come to rest at approximately 30 in. above the surface of the mercury in the basin.

The space above the mercury in the tube will be a vacuum. It is called the Torricellian vacuum. The pressure on the surface of the mercury in the tube will be nothing. Therefore, the pressure of the air on the surface of the mercury in the basin will be supporting the column of mercury in the tube, *i.e.*, the pressure of the air will support a column of mercury of about 30 in. high.

If the top of the tube be moved sideways, *i.e.*, removed from the vertical position, it will be noticed that the mercury will move up the tube so as to maintain its surface at the same vertical height above the mercury in the basin. From this experiment we can easily find the pressure of the air upon each square inch, since it is evidently equal to the weight of a column of 30 in. of mercury, *i.e.*, the weight of 30 cu. in. of mercury resting on each square inch. The weight of 30 cu. in. of mercury is 14.68 lb.

Therefore, when the height of the mercury column is 30 in. above the surface of the mercury in the basin, the pressure of the air is 14.68 lb. per square inch.

Barometer.

The piece of apparatus described in the previous experiment is a simple barometer. If it were left standing for a few days it would be discovered that the height of the mercury column was not always 30 inches. Some days it would be less, other days more, but whatever its height it would always be a measure of the air pressure at that time. We therefore sometimes speak of the air pressure, or the height of the barometer, as being so many inches of mercury. For example, the height of the barometer to-day is 29.64 inches. A great many people are only interested in the barometer as a weather-glass. This, no doubt, arises from the fact that there is some kind of relation between the type of weather we may expect and the variation in the "height of the barometer."

Though, for the purposes of the experiment just described, other liquids could be used instead of mercury, readers of previous articles will readily understand why mercury is used. Suppose, for example, that water had been used; then instead of selecting a tube just over 30 in. long, it would have been necessary to select one over 30 ft. long, and this would be a very unwieldy affair.

Boyle's Law.

In a previous article is was stated that in order to understand the action of a pressure gauge for measuring high pressures, a knowledge of Boyle's law was necessary. We are now in a position to describe this law. The pressure exerted by a gas, like air, is easily changed by altering either its volume or its temperature. When speaking of a gas, it is necessary to think of three of its properties, viz.: (*a*) its volume, (*b*) its pressure, (*c*) its temperature. There are three laws by which two of these properties are related to one another, provided the third remains constant.

Boyle's Law, enunciated by Robert Boyle in 1662, is the relation between the volume and the pressure when the temperature remains constant. It is: "The volume of a gas varies inversely as the pressure when the temperature is constant." Put quite simply, it means that as the pressure increases the volume decreases, or vice-versa. For example, the pressure exerted by a gas will be doubled if its volume be halved, always, of course, provided that its temperature is not changed.

Another way of stating and using this law is as follows:—"For any given mass of gas, the product of the pressure and the volume is a constant quantity provided the temperature does not change."

Suppose a barometer were fixed up in an air-tight room, and that one of the walls could be pushed in so as to halve the volume of air in the room, then the height of the mercury in the barometer would read 60 in. instead of 30 in.

LANDLORD AND TENANT ACT, 1927

MR. J. LEONARD CROUCH read a paper on this subject on February 6, before the Surveyors' Institution. In the course of his paper, he said that the main purpose of the Act, which was to come into force on March 25, next (Section 26 (2)) was to provide for the payment of compensation for improvements and goodwill to tenants of premises used for business purposes. It might be remarked that the Act applied to England and Wales only (Section 26 (3)). Much of the law of landlord and tenant with which one had been familiar was changed. The Act gave to certain tenants of business premises particular rights not hitherto enjoyed by them, and the first 17 sections forming Part I set them out in detail. The next three sections, forming Part II, made general amendments to the law of landlord and tenant, and the remaining sections, 21 to 26, forming Part III, were general. They contained, however, the important provisions constituting the tribunal for the purposes of the first Part of the Act.

Finally there were three schedules.

Part I. Sections 1—17.

It might seem at first sight a comparatively simple matter to provide for compensation for improvements and goodwill to be paid to tenants on the termination of their tenancies. A moment's consideration, however, was sufficient to dispel such a notion. The length of the tenancy had a bearing upon the question; so too had the extent of the landlord's interest in the property. If he were always the freeholder, matters would be simplified. But he might be only a short leaseholder, and if the compensation were always payable by him alone, it might swamp or drown his interest and ruin him, leaving the tenant an unsecured creditor for the whole or part of the compensation. Both parties in such a case had, therefore, to be protected as far as possible if the scheme of the Act was not to be defeated. Superior landlords naturally came into view. If they were to be brought to the rescue, their interests would have to be considered before liabilities were placed upon them, otherwise they too might share the fate of the immediate landlord and the tenant's interest might not be improved.

A further complication arose. What was the meaning of the expressions "improvements" and "goodwill"? What was an improvement through the eyes of the tenant might be waste through the eyes of the landlord. He could not be asked to pay for it unless in fact it was an improvement. Again, the improvement might have been executed under a contract with the landlord, and paid for by him either in cash or by accepting a lower rent; provision would have to be made whereby the landlord was not to pay for the same thing twice over. If goodwill was to be paid for, was the tenant to be allowed to set up business elsewhere? If so, he might be placed in the enviable position of being paid for his cake and keeping it as well. It was not difficult to multiply the number of such matters. To meet the difficulties which arose in connection with them was one of the purposes of the first part of the Act. It remained to be seen hereafter whether its provisions met all the unexpected circumstances which one knew had an inveterate habit of happening. Shortly, this part of the Act enacted that the tenant was to be compensated for his improvements to the holding and for any goodwill attaching to the premises created by him and which he would lose on quitting, provided that, in each case, the holding was thereby increased in value. No further definition of either improvement or goodwill was given in that Act.

These two matters of compensation for improvements and compensation for goodwill were kept separate in the Act. In the former case the Act supposed that normally the landlord would pay in cash, but provided that, as an alternative, he could offer the tenant a renewal of the lease. In the case of goodwill the tenant could, in certain specified circumstances, demand a new lease. The claim for compensation for improvements was dealt with in the first three sections of the Act. The machinery by which the tenant was enabled to claim compensation quite shortly was as follows. The tenant first of all had to give notice to his landlord that he proposed to make an improvement. In the event of the landlord objecting, the tenant could apply to the tribunal, which could, in certain circumstances, certify that the improvement was a proper one. In that case, as well as where the landlord did not object, the tenant could proceed to execute the improvement. The last formality which had to be observed was for the tenant to make a claim upon the landlord for compensation. The draftsman of the Act had to commence somewhere, and perhaps the service of the claim on the landlord was as logical a place to commence as anywhere. At any rate that is where he commenced.

Part II.

General Amendment to the Law of Landlord and Tenant.

Alterations, both considerable and important, are made in the law of landlord and tenant.

Section 18 (1).—The first alteration concerned the ordinary covenant or agreement to keep or put the premises in repair during the lease, and the covenant to surrender in repair at the termination of the lease. It mattered not whether the covenant or agreement was expressed or implied, general or specific. In no case were damages for breach of it to exceed the amount (if any) by which the value of the reversion (whether immediate or not) in the premises was diminished owing to a breach of such covenant or agreement as aforesaid.

By *Section* 19 (1) certain matters were to be read into leases made before or after the commencement of the Act. Such leases were those which contained a covenant against assigning, underletting, charging or parting with the possession of demised premises or any part thereof without licence or consent. Such covenant shall, notwithstanding any express provision to the contrary, be deemed to be subject—

(*a*) to a proviso that such licence or consent was not to be unreasonably withheld; and

(*b*) (if the lease is for more than 40 years and was made in consideration wholly or partially of the erection or the substantial improvement, addition or alteration of buildings, and the lessor was not a Government department or local or public authority, or a statutory or public utility company) to a proviso to the effect that in the case of any assignment, under-letting, charging or parting with the possession (whether by the holders of the lease or any under-tenant whether immediate or not) effected more than seven years before the end of the term no consent or licence shall be required, if notice in writing of the transaction was given to the lessor within six months after the transaction is effected.

Part III.

General.

Part III of the Act, although headed "General," contained Section 21, by which the much-debated question of the tribunal was settled. The county court had been chosen by Parliament to act in the capacity, subject to transfer to the High Court. By Section 21 (1) the particular county court would be that in which the premises or any part of them were situated. It would doubtless happen occasionally that the

parties would have a choice between two county courts.

In two circumstances the High Court would be the tribunal, (*a*) if, before commencing proceedings in the county court, the claimant or applicant and all persons affected agreed that the claim of application should be heard by the High Court; and (*b*) if on an application being made to the High Court within the prescribed time the matter was transferred to the High Court in accordance with and subject to the provision of Section 126 of the County Courts Act, 1888.

EMPIRE TIMBER EXHIBITION

LORD LOVAT opened on Friday, February 3, at the Imperial Institute, South Kensington, the first exhibition of Empire timber in this country, being the second of a series arranged by the Institute to call attention to particular resources of the Empire, with the object of increasing the use of its raw materials.

Lord Lovat said that the Imperial Institute had in the last couple of years been getting a real grip of matters of interest to the Empire. It was necessary that people should know where these kinds of wood could be found, what were their uses and cost, and other particulars about them; and he hoped that many of the consumers would come to see the exhibits. We required to know about our Imperial products, specially about hardwood products which came from the non-self-governing Colonies.

The exhibition has been arranged in the Exhibition Pavilion of the Institute, and has been designed to draw attention to the useful timbers grown in commercial quantities in the oversea parts of the Empire. Many such timbers, chiefly hardwoods, are little known outside the trade, and some have not yet been marketed in this country. The Institute has brought together samples of both the better known and less known kinds. Cards are fixed to them, giving brief descriptions, with particulars of their uses and cost. Those timbers which have been recommended in a list prepared by the Timbers Committee are marked with a red disc. Furniture, joinery, musical instruments, and motor bodies made from Empire timber are also shown, and much of the finer work reveals in a striking degree the beauty as well as the utility of many Empire woods.

One of the most interesting sections is that of the Forest Products Research Laboratory, Princes Risborough. This has been planned to illustrate aspects of timber utilisation (including conversion of timber, seasoning, grading, etc.); timber mechanics; wood technology; and diseases and pests of timber. This section particularly is of the greatest value and help to the architect and contractor, for there are shown scientific methods of selection of timber. There are many examples of specimens of timber that have been tested to breaking strain. This is done by supporting a beam of timber at the two ends and dividing the length between the points of support into three sections. A load is then applied to the point to either side of the middle section, naturally the weakest one, and steadily increased until a break occurs. Certain facts are then recorded—the measurements of the beam, the percentage of "summerwood," the moisture content—and a careful analysis made of the break. The presence of knots in the wood is sought for, and the direction of the grain noticed, from all of which it is possible with experience to sum up the qualities of any timbers almost "at a glance."

Some examples of smaller English timbers of a kind most suitable for pit-joists are also on view, and the breaking point is so high that it compares excellently with the strength of foreign woods.

The Princes Risborough Laboratory has turned its attention to the study of the "death-watch" and other beetles injurious to furniture and timber. Although the laboratory is mainly concerned with the cure, we learn from one of the principals that prevention is the best cure and that the best method for this is to maintain absolute cleanliness in the stackyard. No litter of shavings or odd pieces should be left lying around the yard under which the beetles may breed. Regarding wood which may have been attacked by beetle, kilning at an even temperature of 120 deg. F. will destroy the beetle without damage to the timber. Furniture or other constructed timber is more difficult to clear from "worm." There is no known insecticide which will eradicate the pest in one application, but the department advocates a mixture devised by the late Professor Lefroy:—

	Per cent.
Orthodichlorobenzene	91
White Castile soap	7
Cedarwood oil	2

This may be brushed or sprayed on without serious damage to the varnished or polished surface, and should be done during March to September at intervals of about one month—this period being the breeding season.

Among the manufacturerd articles shown are Sir Herbert Baker's designs for doors for India House, and Mr. W. Curtis Green's doors for Stratton House, Piccadilly.

BRISTOL MASTER BUILDERS

Annual Meeting.

THE following officers were elected at the annual meeting of the Bristol Association of Building Trades' Employers:—President, Mr. E. Walters; senior vice-president, Mr. F. Wilkins; junior vice-president, Mr. A. A. Scull; hon. treasurer, Mr. C. R. Setter; hon. auditors, Messrs. W. S. Weeks and F. A. R. Woodward; General Purposes Committee, Messrs. E. W. Walters, F. Wilkins, A. A. Scull, C. R. Setter, W. S. Weeks, F. A. R. Woodward, Conrad K. Cowlin, J. Colman, F. N. Cowlin, H. C. Hayes, A. W. Potter, S. Slaughter, Albert Wilkins, and J. Horne; Finance Committee, Messrs. E. W. Walters, Conrad Cowlin, C. R. Setter, and W. S. Weeks.

Owing to the resignation of Mr. A. J. Pitt, who has held the secretaryship for 22 years, and who has now taken up another appointment in a different sphere, the Association has come to an agreement with the South-Western Federation whereby their Secretary, Mr. W. H. Orrom, will undertake the secretaryship of the Association. The report commented on the serious position in which the trade will find itself if more plasterer apprentices are not trained, and proceeded: "Interviews were held with both plumbers and woodworkers, from which it was evident that the men were watching the position very closely, with a view to taking restrictive action wherever possible. It is a point for consideration whether the time is not imminent when a reversion to the old method of direct apprenticeship will have to be adopted. It is the opinion of more than one member that the operatives are making use of the Joint Apprenticeship Board to restrict the number of lads entering the trade."

The National Federation of House Builders.

A meeting of the house builders of Bristol was held under the auspices of the National Federation of House Builders of Great Britain, when a discussion took place on the question of the provision of capital for owner-occupiers, and also the possibility of builders erecting houses to let for rental. It was decided to form an association, to be known as the Bristol and District House Builders' Association, in connection with the National Federation, and to hold a further meeting to elect officers. The President of the National Association, Mr. J. W. Comben, presided at the meeting.

RICHMOND AND KINGSTON MASTER BUILDERS

Annual Dinner.

THE Richmond, Kingston and Districts Branch of the London Master Builders' Association held, on Wednesday, February 1, their second annual dinner at the Greyhound Hotel, Richmond. The President, Alderman J. Wills, J.P., was in the chair, and among those present were:—Mr. R. L. Roberts, M.A.; His Worship the Mayor of Richmond, Wm. C. Robinson, M.B.E., J.P.; Messrs. Geo. H. Parker, F. Thorogood, Ernest J. Brown, H. Langford Moyle, C. F. Oldridge, A. H. Adamson, A. B. H. Colls, T. H. Smith, W. Soole, E. J. Partridge, F.R.I.B.A., G. W. Buchanan, James W. Sargeant, A. Howe, J. F. Ashe, A. W. Folshom, J. W. Trodd, Geo. E. Snell, F. W. Pearce, F.S.I., A. J. Ogden, E. Ward, G. Laws, M.R.San.I., W. G. Soole, W. A. Gaze, S. J. Gaze, E. W. Janes, A.M.I.E.E., W. J. Rudderham, D. Hadyn Whitehouse, W. H. Presbury, Major W. H. Smith, A.M.I.Mech.E., and Mr. W. D. Bissett, V.C., the organiser.

The loyal toasts honoured, the President, proposing the toast of "The President and Officers of the L.M.B.A.," said that he would like to thank those members of the L.M.B.A. who had set an example to the Richmond and Kingston branch in the way they should go. In addition, however, he would thank not only the employers but the employees. He then referred to the new form of contract and to the enormous amount of work which Mr. Adamson had put into the proceedings. Coming to the organisation of the committees of the Richmond and Kingston branch, he would like to say how much they appreciated their secretary, Mr. W. D. Bissett. Since they had amalgamated with Kingston there was a bright future in store for them.

Mr. R. L. Roberts, President of the L.M.B.A., in response, said it was a pleasure and honour for himself and other London members of the Association to come down to help in the work being done in Richmond. Richmond and Kingston were the children of the L.M.B.A., but they were growing rapidly, and one of the things they demanded was longer hours. He would merely say that and leave it at that. He would, however, ask them what would be their position if there were no Federation. All manner of advantageous work—connections with architects, legislation with Parliament, etc., etc.—was done by the Federation. The greater the number of members it embraced, the greater the efficiency. In other words, the more they were together, not only the happier but the stronger they would be.

Mr. A. H. Adamson then proposed the toast of "The Richmond, Kingston and Districts Branch of the L.M.B.A." He said that he was one of the small band who came out to Richmond in the hope of forming a branch. At first there would be but one or two attending, but now there were over thirty, besides a large number of associate members. Speaking of the new form of contract, he said that what was wanted was a form of contract that was equitable for all. He felt that final approval would be given with general acclamation.

Mr. F. Thorogood replied.

Mr. C. F. Oldridge proposed and Mr. James W. Sargeant replied to the toast of "The Associate Members," and the Mayor of Richmond responded on behalf of "The Guests," proposed by Mr. W. Soole, to whom a presentation was made during the evening as a token of esteem and regard from the members of the Richmond and District Branch of the L.M.B.A., and in appreciation of his services as the first Branch President, 1925-26.

A very agreeable programme of music was given during the evening.

NEW BUILDINGS IN LONDON

Acton.—EXTENSIONS.—Messrs. F. & H. F. Higgs, Ltd., Station Works, Hinton-road, Herne Hill, S.E., have secured a contract for extensions to the Acton Vale dry-cleaning works of Messrs. Eastman & Son. The plans have been prepared by Mr. G. Percy Pratt, 174, High-street, W.3.

Charing Cross-road.—REBUILDING. — The showroom premises at the corner of Charing Cross-road and High-street, W.C.2, of Messrs. American Clothiers, Ltd., are to be rebuilt, including new display and shop fronts.

Downham.—BRANCH.—The South Suburban Co-operative Society, Ltd., have placed a contract with Messrs. Truett & Steel, Ltd., High-street, Thornton Heath, Croydon, for new branch premises.

Downham.—CHURCH.—L.C.C. has sold a site of .68 acres at junction of Shroffold-road and Northouse to the Church of England authorities for a mission hall or church.

Edmonton.—HOME.—Plans for erecting a new operating theatre at the North Middlesex hospital for the Board of Guardians are to be submitted immediately to the Ministry for approval. The architect is also to prepare amended plans for a home for 100 nurses on the westerly side of the tennis courts, facing the existing home. The original site is to be used for dining-room, kitchen, etc., accommodation.

Finsbury.—REBUILDING. — Messrs. E. B. Holmes & Co., Ltd., of 155, Mare-street, Hackney, E. 8, have secured the contract for the reconstruction of cabinet works of Messrs. H. Schumann, at 69, Leonard-street, E.C. 2, under the supervision of Messrs. Mark W. King & Sons, of 6, Holborn Viaduct, E.C.1. architects.

Forest Gate.—HALL.—A new Jewish Communal Hall, with five classrooms, small hall, etc., is to be built in Earlham-grove, E.7. The builders are the Pitcher Construction Co., Ltd., 57, Ashburton-grove, Holloway, N. The plans have been prepared by Mr. Bertie Crewe, 75, Shaftesbury-avenue, W.1.

Grosvenor-place.—OFFICE.—No. 19, Grosvenor-place, S.W.1, has been acquired by the Midland Bank, Ltd., for conversion into a branch office. Messrs. Whinney, Son & Austen Hall, 8, Old Jewry, E.C.2, are the bank's architects.

Hackney.—REINSTATEMENT. — Mr. H. W. Currey, L.R.I.B.A., of 37, Norfolk-street, Strand, W.C. 2, is the architect, and Messrs. E. B. Holmes & Co., Ltd., of 155, Mare-street, Hackney, E. 8, are the builders, for the reinstatement of Messrs. Turnpenny's, Ltd., factory in Weymouth-terrace, Hackney-road, E. 2.

Hendon.—SCHOOL.—A new trade and technical school is to be provided on the Rookery estate, The Hyde, Hendon, by Middlesex Education Committee. Mr. H. G. Crothall, F.R.I.B.A., is the County Architect.

Hendon.—WORKS.—The premises of the *Hendon and Finchley Times* in Church-road, Hendon, N.W., are being enlarged. Messrs. W. A. Taylor, of Finchley, are the builders; Messrs. Emden, Egan & Co., 7, Garrick-street, W.C., are the architects; while Messrs. Young & Co., 6, Queen Anne's-gate, Westminster, are responsible for the constructional steelwork.

High Holborn.—SHOPS.—Mr. Charles H. Abrahams, 1, Wedmore-street, N.19, has commenced pulling down Nos. 235, 236, 237 and 238, High Holborn, W.C., where it is proposed to build a large block of shops and showrooms, with offices above. The architect is Mr. Cecil Eprile, A.R.I.B.A., 107, Jermyn-street, S.W.1.

Holborn. — ADDITIONS. — Messrs. H. J. Greenham, Ltd., Isleworth, are demolishing old buildings in Leith-place and Leather-lane, W.C., where the Prudential Assurance Co., Ltd., contemplate the erection of a large addition to their head offices.

King's-street. — ALTERATIONS. — The City Corporation Lands Committee has decided to recommend the acceptance of a tender amounting to £36,501 submitted by Messrs. Rice & Sons for the rebuilding of the Guildhall Offices, etc., fronting Church-alley.

King-street.—HOUSES.—A site in King-street, S.W.3, is to be developed by the erection of new shops, flats and houses. The builders are Messrs. Snelling & Rayment, Roe Bridge, Mitcham-lane, S.W.16. Plans have been prepared by Mr. C. H. Roberts, A.R.I.B.A., 53, Frith street, W.1.

Leytonstone. — REBUILDING. — Messrs. Charrington & Co.'s Brewery, Ltd., Mile End, E.1, have placed a contract with Messrs. H. C. Horswill, Ltd., 182, Green-street, E.7, for the rebuilding of the "Green Man" public-house in High-road. The architect is Mr. R. Banks-Martin, J.P., 199, Plashet-grove, East Ham, E.

London.—EXCHANGES.—Schemes have been drawn up for 32 additional exchanges, for which sites have been obtained, for the Controller of the London Telephone Service.

Marylebone.—FLATS.—The St. Marylebone Housing Association, Ltd., have applied to the Ministry of Health for approval of plans for the erection of a large block of flats in Lisson grove, N.W. The architect is Mr. E. W. Bamfield, A.R.I.B.A., 110, Fawn-brake-avenue, S.E.24.

Mortimer-street.—CONVERSION.—The Midland Bank, Ltd., have acquired premises at 5-11, Mortimer-street, W.1, for conversion into a branch bank. The contractors are Messrs. Walter Lawrence & Son, 31, Sun street, Finsbury-square, E.C. The bank architects are Messrs. Whinney, Son & Austen Hall, 8, Old Jewry, E.C.2.

Queen Victoria-street.—RECONSTRUCTION.—The Underground Railway Company have accepted the tender of Messrs. J. Carmichael (Contractors), Ltd., 331, Trinity-road, Wandsworth, S.W., for the refacing, with Portland stone, of their Mansion House station.

Regent-street. — ALTERATIONS. — Messrs. Knuzle, Ltd., chocolate manufacturers, Birmingham, have acquired No. 101, Regent-street, W.1. Alterations, shop fittings, etc., are to be effected by Messrs. A. Edmonds and Co., Ltd., 29, High Holborn, W.C.1.

Regent-street.—ALTERATIONS.—Premises in Regent-street, W.1, have been acquired by the Mattamac Stormproof Co., where a branch shop and depot is to be opened. Extensive alterations, including new shop-fronts, will be carried out to the designs of Mr. S. B. Pritlove, 6, Sherwood-street, W.1. The contractors are Messrs. Holliday & Greenwood, Ltd., 11, Buckingham Palace-gardens, S.W.1.

Regent-street. — EXTENSIONS. — Messrs. Mercie McHardy, Ltd., are to extend their showrooms at 183, Regent street, W.1, to the designs of Messrs. Yates, Cook & Darbyshire, 43, Great Marlborough-street, W.1.

Regent-street. — REBUILDING. — Messrs. Thomas and Edge, Station-chambers, Cross-street, Woolwich, S.E., have secured the contract for the rebuilding of the premises at No. 29-31, Regent-street, S.W.1. The plans have been prepared by Messrs. Yates, Cook and Darbyshire, 43, Great Marlborough-street, W.1. Demolition and excavation will be carried out by Mr. Chas. Abrahams, 1, Wedmore-street, N.19.

Selhurst.—SHEDS.—The Southern Railway Co. are proposing to spend £125,000 on the erection of new cleaning sheds for electric trains at Selhurst.

Strand. —IMPROVEMENTS. — The London County Council has approved the site, having an area of about 3,690 sq. ft., with frontages of about 50 ft. to the Strand and about 72 ft. to Adam-street, be let on lease to Sir Walter Lawrence.

Tottenham Court-road. — PREMISES. — Messrs. Lloyds Bank, Ltd., Gracechurch-street, E.C., have purchased a portion of the old Meux's Brewery site, situated at the corner of Tottenham Court-road and Great Russell-street, W.C., where they propose to build new branch premises.

Tulse Hill.—ALTERATIONS.—A sum of £36,250 has been sanctioned by the Southern Railway Co., for alterations to Tulse Hill Station, S.W.

Trafalgar-square. — RECONSTRUCTION. — The tender of the Foundation Co., Ltd., Aldwych House, W.C.2. has been accepted by the directors of Grand Buildings (Trafalgar), Ltd., for the reconstruction of the Grand Hotel, W.C.2.

Wandsworth.—BUILDINGS.—The Salvation Army have leased a plot of land at York-road for 99 years to erect building.

Wardour-street.—SHOPS.—New shops and offices are to be built at 139, Wardour-street, W.1, and the old premises reconstructed. Plans have been prepared by Messrs. Robins, Gore & Mercer, 205, Wardour-street, W.1.

West Ham.—FLATS.—The Ministry of Health has sanctioned a loan of £146,404 for the erection by the West Ham Town Council of 196 flats at Manor-road and Star-lane, Plaistow.

Wimbledon.—BOULEVARD.—The Wimbledon Corporation are considering a scheme for the proposed construction of a boulevard alongside Beverley Brook.

Woolwich.—CLUB.—The Woolwich Borough Council Tenants' Welfare Association have leased a site on Eltham Hill for the erection of a club and institute.

Woolwich. — HOUSING SCHEME. — The Borough Council is to invite tenders for the erection of 30 houses on sites on Section "D" at the corner of Prince John-road and Eltham Hill. Plans for these houses—which are to be all electric—will be prepared by the Borough Engineer.

Woolwich.—SCHOOL.—The London County Council has accepted the estimate submitted by Mr. F. R. Hipperson, of 6, Broad-street-place, E.C.2, for the erection of an elementary school in Ealdham-square, Eltham. The plans have been prepared by the Council's architect. The price of the tender is £27,958 10s. 11d.

The British Journal Photographic Almanac, 1928.

The British Journal Photographic Almanac, 1928. London: Henry Greenwood & Co., Ltd., 24, Wellington-street, W.C.2. 2s. net (paper covers); 3s. net (cloth bound).

This well-known annual, the 1928 edition of which is just issued, seems to increase in content and value every year. A volume of nearly 800 pages, it is a positive compendium on the subject of photography. A list of its features would extend to several columns of *The Builder*. Its text pages include 50 pages of articles of practical and æsthetic interest; 60 pages of hints and items of progress; 70 pages of illustrated reviews of the latest introductions in photographic materials and equipment; and 130 pages covering all aspects of photographic technique and photographic organisations. Its series of 64 beautiful photogravure reproductions of camera pictures—architectural, scenic, portraiture, etc.—are alone worth the price of the complete book. To all who are interested in the subject of photography the volume is an indispensable *vade-mecum*.

The "Red Triangle" Diary.

We have received from the Portland Cement Selling and Distributing Co., Ltd., Ltd., 27, Buckingham Gate, London, S.W.1, a copy of their "Red Triangle" Diary for 1928. From the data contained therein it has evidently been designed specially for architects, surveyors, structural engineers, Borough Engineers, builders and contractors, to whom it will be of inestimable value. It is published from 27, Buckingham-gate, London, S.W.1, and we are informed that a copy will gladly be sent to anyone engaged in any of the above trades who cares to make application.

RATES OF WAGES IN THE BUILDING TRADE

[Every endeavour is made to ensure accuracy but we cannot be responsible for errors.]

	Masons.	Brick-layers.	Car-penters Joiners.	Plas-terers.	Slaters.	Plum-bers.	Pain-ters.	Lab-ourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Alfreton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Alnwick	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashford (Kent)	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Ashington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Aylesbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Aylsham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Banbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnstaple	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Basingstoke	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Berwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bexhill	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/10	1/10	1/10	1/11	1/10	1/10	1/9½	1/4½
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bradford-on-Avon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Braintree	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Brentwood	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bridgwater	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bridlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brighton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bromsgrove	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bromyard	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bungay	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Buxton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Canterbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Carlisle	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chorley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cirencester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Clacton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cranbrook	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cromer	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Deal	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Denbigh	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Devizes	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Dewsbury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dorchester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Dorking	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Dovercourt	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Driffield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Droitwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
E. Glam. (Mon. Val.)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ely	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Exeter	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Exmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Fakenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Felixstowe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Frome	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Glossop	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Godalming	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Goole	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Gosport	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Great Yarmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harpenden	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hatfield	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hednesford	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hereford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Herne Bay	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hertford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hitchin	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hoddesdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Holt	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hunstanton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Huntingdon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Isle of Wight	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Ipswich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Keighley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Kettering	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Kidderminster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
King's Lynn	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leighton Buzzard	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Littlehampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Liverpool	1/10	1/10	1/10	1/11	1/10	1/10	1/9½	1/4½
Llandudno	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London:								
12 m. radius	1/9	1/9	1/9	1/9	1/9	1/9	1/8	1/4
12-15 m. radius	1/8½	1/8½	1/8½	1/8½	1/7½	1/8½	1/7½	1/3½
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lowestoft	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Luton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Macclesfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Malvern	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Margate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Market Harb'rough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Matlock	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Melton Constable	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Melton Mowbray	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newark	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-ur-Lyme	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
New Forest	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newmarket	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newport, Mon	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Nuneaton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Paignton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Peterborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ramsgate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Reading	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Redcar	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Redditch	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Reigate	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Retford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ripon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Saffron Walden	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sawbridgeworth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Saxmundham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sevenoaks	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sittingbourne	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Southampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stevenage	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stourbridge	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stourport	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stowmarket	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Stratford-on-Avon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stroud	1/5	1/5	1/5	1/5	1/5	1/5	1/4½	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swaffham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Tamworth	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Taunton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Thetford	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Torquay	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Totnes	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Trowbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Uttoxeter	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wallsend	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warminster	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wells (Norfolk)	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Welwyn Gar. City	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Weston-sup.-Mare	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Weymouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Whitby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Winchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Windsor	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wisbech	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Woodbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worksop	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/0½
Worthing	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Wrexham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wroxham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Wymondham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

For rates of wages in the Building Trade in Scotland, see page 280

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.; Engineer, E.; Borough Architect, B.A.; Architect, A.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING ETC.

FEBRUARY 13.

Bramhall.—Telephone Exchange.—Erection of, at Bramhall, for the Commissioners of H.M.O.W. Contracts Branch, King Charles-st., London S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

Cardiff.—Extensions.—To Girls' High school, The Parade, for E.C. G. H. Whitaker, Architect to E.C. Dep. £2 2s.

Caterham.—Fire Station.—For U.D.C. S. Dep. £1 1s.

Croydon.—Houses.—Erection of 96, at Mitcham-rd. estate, for the Croydon B.C. Borough Engineer, Town Hall, Croydon. Dep. £2 2s.

Edinburgh.—Alterations.—Demolition of properties 149a to 177, Cowgate: alterations on cooperage 147, Cowgate, and the erection of new boundary walls, etc., for T.C. B.E.

Ellesmere Port.—Centre.—Maternity and child welfare centre fronting York-rd., Ellesmere Port, for Ellesmere Port and Whitby U.D.C. Surveyor. Dep. £5.

Goole. — Installation. — Of electric light at Secondary school, for West Riding E.C. Education Department, County Hall, Wakefield.

Hull.—Houses.—400 non-parlour type, on West Hull housing estate, for T.C. D. Harvey, A.R.I.B.A., City Architect.

London.—New Mezzanine Floor.—Construction of, at General Post Office South, Queen Victoria-st., for the Commissioners H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

Manchester.—Alterations.—To basement at Gorton (West) Library, for T.C. City Architect. Dep. £1 1s.

Ossett.—Demolition.—Of property in Dale-st. and Kingsway, for T.C. H. Holmes, B.E.

Salisbury.—Additions.—To administrative block at Salisbury and District Joint Isolation Hospital at Old Sarum, for Committee. Francis Hodding, Clerk to Committee, Market House-chambers. Dep. £2 2s.

Shoeburyness.—Painting.—Also repair of two refreshment pavilions and other buildings on Shoebury Common, and also refreshment pavilion and public conveniences, Rampart Terrace, for U.D.C. Surveyor.

Staveley.—School.—For about 340 children at Hollingwood, for Derbyshire E.C. G. H. Widdows, F.R.I.B.A., Architect to E.C., St. Mary's-gate, Derby. Dep. £1 1s.

Wallsend.—Houses.—Six, in Tyne View-terr., Howdon-on-Tyne, for T.C. B.S. Dep. £2 2s.

Warrington.—Pointing.—External pointing and general repairs, and also external painting, at Cottage Homes, Padgate, for B.G. A. Bottomley, C.

Whitstable.—Conversion.—Of existing buildings into disinfecting station, etc., and erection of a new fire station at Horsebridge-rd., for U.D.C. J. Dunn, Surveyor and Water Engineer. Dep. £1 1s.

***Wood Green, N.**—Welfare Centre.—Erection of, in White Hart-lane, for the Wood Green U.D.C. C. H. Croxford, Surveyor to the Council, Town Hall, Wood Green, upon production of a receipt signed by the Treasurer for a deposit of £1 1s.

FEBRUARY 14.

Barking, Essex.—Houses and Flats.—Erection 120 houses and 78 flats, in 13 blocks, for the Barking Town U.D.C. Council's Architect, C. J. Dawson, F.R.I.B.A., Clock House Chambers, East-st., Barking. Dep. £5.

Bradford.—Houses.—Thornbury, 8; Swain House estate, 4; Lower Grange estate, 22, for T.C. City Architect.

Cheadle and Gatley.—Extension of Greenhouse.—At Cemetery, for U.D.C. S.

Deal.—Telephone Exchange.—Erection of, at Deal, Kent, for the Commissioners of H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

East and West Flegg.—Building.—Brick enclosed porches with an outer door, over back doors and coalhouses of 25 Council houses, for R.D.C. R. Gournay Ferrier, C.

Edmonton.—Installation.—Maintenance of electric lighting installation at Town Hall and offices, public baths, cleansing station, stores, mortuary and outbuildings, maternity centre and public libraries, for U.D.C. Cuthbert Brown.

Hull. — Theatre. — Superstructure of proposed theatre, Anlaby-rd., for Hull Picture Playhouses, Ltd. Blackmore, Sykes & Co., architects, Ruskin-chambers, Scale-lane.

Kidderminster. — Centre. — Domestic subjects centre in Castle-rd., for T.C. J. Hawcroft, B.E. and S.

Little Lever.—Houses.—72, on March Farm estate, for U.D.C. S. Dep. £2 2s.

Preston.—Houses.—157, for C.B. W. Platt, B.E. and S. Dep. £2.

Reigate.—Cottages.—Erection of 8 non-parlour cottages in Outwood-lane, Chipstead, for the Reigate R.D.C. Offices of the District Surveyor, 48, High-st., Reigate. Dep. £3 3s.

Sheffield.—Houses.—92, on Longley estate, for T.C. W. Geo. Davies, F.R.I.B.A., City Architect. Dep. £2.

Stanmore.—Telephone Exchange.—Erection of, at Stanmore, for the Commissioners of H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

Wallasey.—Garage.—Also repair shop, etc., new paint shop and conversion of an existing building into offices and waiting-room with messroom over, adjoining tramways depot, Seaview-rd., Wallasey, for Corporation. B.E. and S. Dep. £2 2s.

West Derby.—Alterations.—To female infirm 4 building to form maternity hospital, forming cubicles in old main building, and rebuilding boundary walling and forming new conveniences, for B.G. Ernest B. Bailey, L.R.I.B.A., 9, Cook-st., Liverpool.

Workington.—Employment Exchange.—Erection of, at Workington, Cumberland, for the Commissioners H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

FEBRUARY 15.

Birkenhead.—Overhead Gas Works Sidings.—Reconstruction of railway sidings at Birkenhead, for the Corporation. Gas Engineer, Harold E. Stone, Gas Works, Thomas-st., Birkenhead. Dep. £2 2s.

Belfast.—Stands.—Building work, etc., in connection with stands at "Dunmore," Antrim-rd., for United Greyhound Association (Northern Ireland), Ltd. D. W. Boyd, architect and civil engineer, 43, Scottish Provident-buildings. Dep. £2 2s.

Brentford.—Alterations.—Building work involving alterations necessary to provide the site for a new Weighbridge at the Institution at Isleworth for the Guardians, F. E. Harmsworth, clerk, Trolands House, 34, Twickenham-rd., Isleworth.

***Penge.**—Concrete Wall.—Erection of, around the Anerley school site, for the Penge U.D.C. Col. H. W. Longdin, Surveyor, Town Hall, Anerley, S.E.20. Dep. £2 2s.

Sheffield.—Electric Supply Dept.—Designs and Tenders for structural steelwork and pre-cast reinforced concrete floors for proposed new stores and workshops to be erected on a site in Sheaf-st., Sheffield. S. E. Fedden, M.Inst.C.E., M.I.M.E., M.Inst.E.E. General Manager and Engineer, Commercial-st., Sheffield. Dep. £3 3s.

Swansea.—Houses.—16 type "B" at Pontlliw, for R.D.C. J. Teifion J. Williams, Lic. R.I.B.A., 3, Temple-buildings, Goat-st. Dep. £2 2s.

FEBRUARY 16.

Aberystwyth. — Improvements. — Excavatng and levelling site of proposed new book stack at National Library of Wales. G. T. Bassett, A.R.I.B.A., architect and surveyor.

Belfast.—Redecoration.—Internal redecoration of M'Quiston Institute Public Elementary school, for C.B. Education Architect.

Camberwell.—Internal Painting and Re-decorating Work.—At Dulwich Baths, East Dulwich-rd., S.E.22, for the Borough Council. William Bell, A.M.I.C.E., P.A.S.I., B.E. and S., Town Hall, Camberwell, S.E.5.

Devon.—Houses.—2 each at Fairmile, Ottery St. Mary; Kennford, Oakford and Rydon, near Holsworthy, for C.C. C.A., 97, Heavitree-rd., Exeter.

Fulham.—Nurses' Home.—Erection of, at the hospital, Fulham Palace-rd., W.6, for the Guardians of the Parish of Fulham. E. J. Mott, Clerk to the Guardians, 129, Fulham Palace-rd., London, W.6. Dep. £5.

Glamorgan.—Repairs.—At Farm school, for Glamorganshire C.C. C. Leslie Thomas, secretary to Management Committee, 42, Queen-st., Neath.

Gunnersbury. — Repairs. — Also decorations to Mansions, Temple and Outbuildings on Gunnersbury Park, for Committee. W. G. Cross, B.E., Acton. Dep. £1 1s.

Haverthwaite.—School.—For Lancashire E.C. S. Wilkinson, F.R.I.B.A., 16, Ribblesdale-place, Preston. Dep. £2.

Haworth.—Removal.—Of galleries at Haworth Council school, for Worth Valley District Sub-Committee. B. Leah, Education Office, Bingley.

***Leicester.**—Houses.—Erection of 139 on the Braunstone estate, in several contracts, for the Housing and Town Planning Committee. J. S. Fyfe, A.R.I.B.A., Housing Architect, Wyggeston House, 18, Highcross-st., Leicester. Dep. £2 2s.

Sheffield.—Works.—In connection with proposed new retail markets, Castle Hill:—(a) general builder's work, (b) cast-iron and steelwork, for T.C. W. G. Davies, City Architect. Dep. £2.

Spalding.—Heating.—Improving heating of Corn Exchange and providing central heating in Council Chamber, for U.D.C. R. W. Hastings, Clerk, Market-place.

Stratton and Bude.—Conveniences.—Refreshment-room and public conveniences, and other works, on site near Mentone, Bude, for U.D.C. F. J. Worden, surveyor, Belle Vue-av., Bude.

FEBRUARY 17.

St. Faith's.—Cottages.—Morton, 2; Ringland, 4; Spixworth, 2; Weston, 2, for R.D.C. A. F. Scott & Sons, FF.R.I.B.A., 23, Tombland, Norwich.

FEBRUARY 18.

Bentley.—School.—Erection of Bentley new middle school and caretaker's house, for West Riding E.C. Education Department, County Hall, Wakefield.

Chorley.—Houses.—51, on Marlborough-st. site, for Corporation. B.S. Dep. £2 2s.

Ferryhill.—Additions.—Also alterations to premises at Ferryhill Station, for Workmen's Club and Institute, Ltd. G. J. Bell, architect, Central-chambers, West Hartlepool. Dep. £2 2s.

Glamorgan.—Improvements.—For (1) Wyndham House, Llantwit Major, conversion into a police station; (2) Caerau Police Station, alterations and additions, and (3) Alexandra Hall, Pontypridd, external painting, etc., for C.C. T. Mansel Franklen, Clerk.

FEBRUARY 20.

Burntisland.—Houses.—60, in sixth development of Haugh housing scheme, for T.C. J. A. Waddell, B.S. Dep. £2 2s.

Canterbury.—Extensions.—To boiler house, and for building work in connection with erection of new heating hot water supply and other plant, at Poor Law Institution and Infirmary, for B.G. H. C. Ashenden, A.R.I.B.A., 29, St. Peter's-st. Dep. £2 2s.

Chelmsford.—Cottages.—8 at Boreham, 2 at Little Baddow, 4 at Rettendon, 2 at Sandon, 22, and construction of sewer and a new road at Broomfield, for R.D.C. J. Dewhirst, E. and S.

Edinburgh.—Alterations.—At electric sub-station, Causewayside, for T.C. E. J. MacRae, A.R.I.B.A., City Architect.

Eyemouth.—Houses.—12, for T.C. T. Small, B.S.

Garforth.—Houses.—26, on housing estate, for U.D.C. C. Castelow, A.R.I.B.A., 10, Park-rd., Leeds. Dep. £2 2s.

Hertford.—Cottages.—Erection of 152 subsidy cottages for the Hertford Corporation. Borough Surveyor's Office, The Castle, Hertford. Dep. £5 5s. (by cheque).

Lambeth.—County Court.—Erection of, for the Commissioners of H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

Llanfair.—Heating.—Installing central heating for Llanfair Council school, for Montgomeryshire E.C. L. L. Phillips, Director, County Education Offices, Newtown.

Sunderland.—Houses.—14, Newcastle-rd., for C.B. B.E. Dep. £2 2s.

Wallasey. — Painting. — External painting 42 Council houses in Lynwood-av., Ruskin-av., Lovelane and Mill-lane, for C.B. B.E. Dep. £1 1s.

York.—Sorting Office.—Erection of, for the Commissioners of H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

FEBRUARY 21.

Bourne End.—Telephone Exchange.—Erection of, for the Commissioners of H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

Chingford.—New Public Offices and Fire Station.—Erection of, for the Chingford U.D.C. G. H. Green, clerk, Council Offices, 34, Station-rd., Chingford, E.4. Dep. £2 2s.

Hailsham.—Houses.—2, at Vines-cross, Heathfield, for R.D.C. W. O. Humphery, E. and S. Dep. £1 1s.

London.—Works and Repairs.—Execution of ordinary works and repairs to the Buildings in charge of the Commissioners, H.M.O.W., in the London district during the period from March 31, 1928.—April 3, 1931. Contracts Branch, H.M.O.W., King Charles-st., London, S.W.1. Dep. £2 2s. (Cheques payable to the Commissioners.)

Louth.—Post Office and Telephone Exchange.—Erection of, for the Commissioners of H.M.O.W. Contracts Branch King Charles-st., London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

Lyme Regis.—Post Office and Telephone Exchange.—Erection, for the Commissioners of H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

Various Places.—Small Building Works and Repairs.—Contracts to R.A.F. Stations, Upavon, Netheravon, Larkhill, Ascot and Milton, from March 1, 1928. The work at Netheravon and Larkhill will be let under one contract. Superintending Engineer, Works and Buildings Dept., South Western District Headquarters, R.A.F. Station, Andover.

FEBRUARY 22.

***Herne Bay.**—Cleaning and Painting Works.—At St. Anne's Home, Herne Bay, Kent, for the M.A.B. Office of the Board, Victoria Embankment, E.C.4. Dep. £1.

London.—Building.—For (1) provision of fire escape staircase at Northern Hospital, Winchmore-hill, N.21, and (2) new cubicles for night staff quarters at Sheffield-st. Hospital, Sheffield-st., W.C.2, for M.A.B. Allan Powell, clerk. Dep. £1 each.

Newcastle-upon-Tyne.—Conveniences. — In Westgate-rd., near Two Ball Lonnen, and at City-rd., near Sallyport-screscent, also for alterations to existing convenience in Haymarket, for T.C. City E.

Penge.—Alterations and Additions.—To "Oaklawn," No. 194, Anerly-rd., Anerly, S.7.20, and also additions thereto, for the Penge U.D.C. Col. H. W. Longdin, Surveyor to the Council, Town Hall, Anerly, S.E. Dep. £3 3s.

***Various Places.**—Various Works.—(1) Provision of fire escape; (2) new cubicles for night staff; (3) forming new bathroom at hospitals, for the M.A.B. Office of the Board, Victoria Embankment, E.C.4. Dep. £1 1s. in respect of each work.

FEBRUARY 23.

Nantwich.—Electric Light.—Installation in Institution, for B.G. H. G. Atkinson, Clerk. Dep. £1 1s.

Portmadoc.—Additions.—Extensive improvements and additional classrooms at County school, Portmadoc. O. Morris Roberts & Son, architects, 1, Bank-place.

Retford.—Casual Wards.—Also other works on Lidgett Lane site, for East Retford B.G. W. Southall, L.R.I.B.A., Chapelgate. Dep. £2 2s.

Southampton.—New Cells and Cottages.—Erection of new cells and pair of cottages at New Milton Police Station for the C.B. A. L. Roberts, county architect, The Castle, Winchester. Dep. £1 1s., must be made by cheque, payable to the Hants County Council, and crossed "Lloyds Bank, Ltd., Winchester," or particulars will not be sent.

FEBRUARY 25.

Egypt.—Excavation.—Of approximately six and a half millions cubic metres of earth work in the remodelling of the Fouadia Canal in Naghamadi district, Upper Egypt, for Ministry of Public Works.

***Mansfield.**—Junior School.—Erection of, for 440 children, on the Bull Farm housing estate, Chesterfield-rd., for the B.C. Waude Thompson, Assoc. Mem.Inst.C.E., B.E. and Surveyor, Market-st., Mansfield.

Solihull.—Dwellings.—20 non-parlour type, on Cornyx-lane site, for R.D.C. W. T. Orton, architect, 7, Waterloo-st., Birmingham. Dep. £1 1s.

FEBRUARY 27.

Bovey Tracey.—Building.—4 almshouses, for Bovey Tracey Town Trust. R. A. Rogers, architect, 7, Union-st., Newton Abbot.

Bury.—Houses.—120, upon land adjoining Proctor-st., for C.B. J. Ainsworth Settle, B.E. Dep. £5.

Morley.—Fencing.—Wood garden fences to 96 houses on Britannia-rd. estate, for T.C. F. Turner, B.E. and S.

Southend-on-Sea.—Intermediate School.—Erection of, and works incidental thereto, at Fairfax-drive, for the Corporation. Frank W. Smith, Architect to the Education Committee, Municipal Buildings, Southend-on-Sea. Dep. £2.

***Staines.—Houses.**—Erection of 28, for the R.D.C. D. C. Fidler, surveyor, London-rd., Ashford, Middlesex. Dep. £2 2s.

FEBRUARY 28.

Crompton.—Houses.—48 non-parlour, at Glebe-st. and Summer-st. housing sites, for U.D.C. F. T. Jones, E. and S. Dep. £3 3s.

Poplar.—Weighbridge.—Installation of a new weighbridge, including builders' work in connection therewith, at St. Andrew's Hospital, Bromley-by-Bow, for the Poplar Board of Guardians. Harley Heckford, M.Inst.C.E., architect, Council Offices, High-st., Poplar. Dep. £1 1s.

FEBRUARY 29.

***Hackney.**—Extension to Boiler House.—At Institution, Sidney-rd., Homerton, for B.G. E. W. Harbour, Clerk. Dep. £5.

MARCH 3.

Halifax.—Shops.—Arcade and shops in Market-st. and Woolshops, for C.B. B.E. Dep. £2 2s.

MARCH 5.

***Essex.**—School.—Erection of new elementary school at Dunton, for the Essex E.C. Jno. Stuart, F.R.I.B.A., County Architect, Springfield Old Court, Chelmsford. Dep. £2 2s. to F. H. Owers, F.S.A.A., County Accountant, Duke-st., Chelmsford.

MARCH 7.

Stoke-on-Trent.—Repairs.—To houses at Longton, for T.C. E. B. Sharpley, T.C.

MARCH 8.

***Stepney.**—Coal Storage Pits, Foundations and Concrete Walls.—Construction of, at Limehouse electricity generating station, Narrow-st., Stepney, for the B.C. Bernard J. Belsher, M.I.C.E., M.I.M.E., B.E. and S., Municipal Offices, Raine-st., E.1. Dep. £5 (Treasury notes).

NO DATE.

Bonnybridge.—Premises.—New Central premises, for Co-operative Society, Ltd. William Mercer, F.I.A.A., 119, Paisley-rd., Glasgow, C.5. Dep. £2 2s.

Dundee.—Houses.—66 additional tenements, at Arklay-st., for T.C. G. Baxter, Director of Housing, 91, Commercial-st.

Edinburgh. — Pavilion. — For Haymarket and Gorgie Railway Bowling Club. J. Cunningham, 7, Downfield-place.

Essex.—Cottages.—2 smallholders' cottages, in Boreham and Roxwell, for C.C. Chas. Lock, County Land Agent, 69, Duke-st., Chelmsford.

Hele.—Foundations.—Building foundations and preparatory work for Hele Barton temporary church, for Committee. H. J. Scoles, architect, Electric-chambers, Union-st., Torquay.

Keighley.—Cold Frames.—Three at Fever Hospital and Sanatorium, Morton Banks, for Keighley and Bingley Joint Hospital Board. F. Atkinson, architect, Old Bank-chambers, Bingley.

Leeds.—Extensions.—Alterations and additions and erection of new wing at School of Medicine, for University. J. C. Procter & H. L. Charlton, architects, 40, Clarendon-rd. Dep. £2 2s.

Merioneth. — Home. — Children's convalescent home, Llwyngwril, for Miss M. S. Davies, Gregynog, Newtown. A. Stanley Hill, architect and surveyor, Severn-sq., Newtown.

Nottingham.—Stonework.—In connection with erection of a bust of the late Samuel Morley, for T.C. T. Wallis Gordon, City E. and S.

Ossett.—Painting.—Internal and external painting and decorating of Welfare centre, for E.C. E. Lucas, Secretary for Education.

Quethiock.—Repairs.—To Vicarage, including roof plumbing, slating, plasterers' and carpenters' work. Vicar.

Sandal (Yorks).—House.—In Sandel-av. W. Wrigley & Son, AA.R.I.B.A., 2, King-st., Wakefield.

Swinefleet.—Hall.—Also completion of church hall. F. Turner, architect, Carlisle-st., Goole.

MATERIALS, ETC.

FEBRUARY 13.

Broadstairs and St. Peter's.—Granite Kerbing.—For U.D.C. H. Hurd, S.

Cardiff.—Sand, etc.—For T.C. City E.

Chatham.—Road Materials.—For T.C. R. L. Honey, B.E. and S.

Docking.—Granite.—For R.D.C. R. W. Hindhaugh, S.

Gosport.—Cement, etc.—For T.C. B.E.

Ruislip-Northwood.—Road Materials.—For U.D.C. H. R. Metcalfe, E. and S.

South Stoneham.—Road Materials.—For R.D.C. W. R. Cowall, S.

Southport.—Road Materials.—For C.B. A. E. Jackson, B.E. and S.

Warrington. — Highway Materials. — For T.C. B.E. and S.

Wealdstone.—Road Dressing Materials.—For U.D.C. H. Walker, S.

York.—Highway Materials—For T.C. F. W. Spurr, City E.

FEBRUARY 14.

Hull.—Highway Materials.—For T.C. City E.

Leeds.—Lime.—For T.C. E. H. Howatson, Sewerage Engineer, 8, Park-sq.

London.—Highway Materials.—For Holborn B.C. J. E. Parr, B.S.

London.—Paving Materials.—For Deptford B.C. T.C.

Poole.—Cement, etc.—For T.C. E. J. Goodacre, B.E.

Surrey.—Slag, etc.—For C.C. W. P. Robinson, C.S.

FEBRUARY 15.

Easingwold.—Road Materials.—For R.D.C. C.

Halifax.—Highways Materials.—For C.B. B.E.

Horncastle.—Road Materials.—For R.D.C. J. S. Derbyshire, S.

London.—Builder's Materials.—For Islington B.C. C. G. E. Fletcher, T.C.

Northumberland.—Road Materials.—For C.C. J. A. Bean, C.S.

Salisbury.—Builder's Materials.—For T.C. City E. and S.

Teddington.—Highway Materials.—For U.D.C. E Bostock, S.

Warwickshire.—Road Materials.—For C.C. D. H. Brown, C.S.

FEBRUARY 16.

Buckingham.—Road Materials.—For R.D.C. A. Fallows, S.

Chelmsford.—Highway Materials.—For R.D.C. L. A. Cozens, Highway Surveyor.

London.—Highway Materials, etc.—For Lambeth B.C. O. Cattlin, B.E.

London.—Road Materials.—For St. Marylebone B.C. T.C.

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Nottingham.—Builder's Materials, etc.—For T.C. T. Wallis Gorden, City E. and S.

FEBRUARY 17.

Doncaster.—Tarmacadam, etc.—For R.D.C. W. R. Crabtree, S.

Ilkley.—Road Materials.—For U.D.C. E. and S.

Leeds.—Builder's Materials.—For T.C. C. Nelson Hefford, Manager, Electricity Department, 1, Whitehall-rd.

Leeds.—Electrical Materials.—For T.C. C. Nelson Hefford, Manager, Electricity Department, 1, Whitehall-rd.

Rye.—Highway Materials.—For R.D.C. R. E. Fuller, District Surveyor.

Stratford-upon-Avon.—Road Materials.—For T.C. F. W. Jones, B.E.

Winchester.—Road Materials.—For T.C. W. V. Anderson, City E.

FEBRUARY 18.

Belfast.—Electrical Materials, etc.—For C.B. T.C.

Cardiff.—Builder's Materials, etc.—For T.C. Neil J. Peters, Water Engineer.

Dorking.—Road Materials.—For U.D.C. S. S. Gettings, S.

East Riding of Yorkshire.—Road Materials.—For C.C. C.S.

Eccles.—Road Materials.—For T.C. B.S.

Felixstowe.—Cement, etc.—For U.D.C. H. Clegg, S.

Hailsham.—Road Materials.—For R.D.C. G. B. Fairchild, S.

Holland (Lincs).—Road Materials.—For C.C. Wm. A. Rogerson, C.S.

Meriden.—Road Materials.—For R.D.C. G. H. Dallow, E. and S.

South Shields.—Cement, etc.—For Corporation. S. G. Stanton, B.E.

FEBRUARY 20.

Colne.—Road Materials.—For T.C. T. H. Hartley, B.E. and S.

Easington.—Highway Materials.—For R.D.C. R. U. Harper, S.

Frimley.—Road Materials.—For U.D.C. R. H. Porteous, E. and S.

London.—Road Materials.—For Bethnal Green B.C. A. E. Darby, B.E. and S.

London.—Cast Iron Pipes.—For M.W.B. Chief Engineer.

Maldens and Coombe.—Builder's Materials.—For U.D.C. S.

Mountain Ash.—Builder's Materials.—For U.D.C. W. G. Thomas, S.

Rawtenstall.—Road Materials.—For T.C. B.S.

Staines.—Highway Materials.—For R.D.C. D. C. Fidler, E. and S.

Waltham Holy Cross.—Granite.—For U.D.C. W. C. Holloway, E. and S.

FEBRUARY 21.

Coventry.—Builder's Materials.—For T.C. E. H. Ford, City E. and S.

Daventry.—Road Materials.—For R.D.C. W. Robson, Highway Surveyor.

East Grinstead.—Road Materials.—For R.D.C. C. Turton, E. and S.

Erith.—Road Materials.—For U.D.C. D. S. Twigg, C.

Leeds.—Highway Materials.—For T.C. E. W. Cockerlyne, Highways Engineer.

London.—Highway Materials, etc.—For Westminster City Council. T.C.

Tottenham.—Road Materials.—For U.D.C. E. Townson, C.

Withernsea.—Pipes.—Cast-iron spigot and socket water pipes, for U.D.C. S.

Woodford.—Highway Materials.—A. D. Ward, S.

FEBRUARY 22.

Caistor. — Road Materials. — For R.D.C. G. Riley, S.

Godstone.—Road Materials.—For R.D.C. G. E. Crowther, E. and S.

London.—Highway Materials.—For Fulham B.C. T.C.

London.—Stonework, etc.—For Hammersmith B.C. T.C.

Warwickshire.—Road Materials.—For C.C. D. H. Brown, C.S.

FEBRUARY 24.

Irlam.—Road Materials.—E. and S.

Merton and Morden.—Road Materials.—For U.D.C. C.

Norwich.—Road Materials.—For T.C. J. S. Bullough, City E.

FEBRUARY 27.

Dunstable.—Highway Materials.—For T.C. W. F. Wilkins, B.S.

London.—Highways Materials.—For Finsbury B.C. T.C.

Long Eaton.—Road Materials.—For U.D.C. H. Raven, S.

FEBRUARY 28.

Acton.—Granite, etc.—For T.C. T.C.

Battersea.—Materials, etc.—Tenders for materials, etc., for 3, 6 and 12 months from April 1 next for the Borough Council. Town Hall, Lavender Hill, S.W.1.

Rugby.—Road Materials.—For R.D.C. J. E. Weeks, S.

FEBRUARY 29.

Alnwick.—Highway Materials.—For U.D.C. G. K. Taylor, Town Surveyor.

Ealing.—Road Materials.—For T.C. W. R. Hicks, B.S.

Goole.—Road Materials.—For U.D.C. J. H. Castle, E. and S.

Upholland.—Chippings, etc.—For U.D.C. C.

MARCH 1.

Burnley.—Highway Materials.—For R.D.C. F. Hewitt, S.

Lichfield.—Road Materials.—For R.D.C. E. and S.
Southend-on-Sea.—Road Materials.—For C.B. Robert H. Dyer, B.E.

MARCH 3.

Skipton.—Highway Materials.—For R.D.C. A. Rodwell, S.

MARCH 5.

Dunmow.—Road Materials.—For R.D.C. P. E. Furlong, Highway Surveyor.

MARCH 6.

Bangor.—Sand.—For T.C. J. Milliken, T.C.

MARCH 10.

Nelson.—Road Materials.—For T.C. B.E. and S.

NO DATE.

Bungay.—Road Materials.—For U.D.C. H. Earl, S.
King's Lynn.—Granite Chippings.—For T.C. J. C. Matthew, B.E.

ENGINEERING, IRON AND STEEL.

FEBRUARY 13.

Blackburn.—Bridge.—Over Leeds and Liverpool Canal at Hall-st., for C.B. H. M. Webb, Borough and Water Engineer. Dep. £3 3s.
Kerry.—Improvements.—Of water supplies at Ballylongford and Ballyheigue, for County Board of Health. Edward M. Murphy, consulting engineer, 27, Molesworth-st., Dublin. Dep. £2 2s.
Laoighis.—Pipes.—Intake Weir, 1,070 yds. of 6-in. cast iron pipe line; 5,270 yds. of 7-in. cast iron pipe line; new filter beds, and all other works connected therewith, at Portlaoighise, for County Board of Health. T. Reilly, secretary, District Hospital, Abbeyleix. Dep. £10 10s.

FEBRUARY 14.

Lisdrumchor.—Water Supply.—For Armagh R.D.C. H. C. Parkinson, engineer, Russell-st., Armagh.

FEBRUARY 15.

Cairo.—Bridge.—Construction of swing bridge over Rayah el Tewfiki at Benha, for British Commercial. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X.5785.)
Holbrook.—Widening.—Small length of road widening and construction of a new bridge near Coxbench Station, Holbrook, for Belper R.D.C. R. C. Cordon, E. and S. Dep. £1 1s.
London.—Steelwork.—790 tons structural steel work for ironfoundry, together with corrugated asbestos sheets, patent glazing with wired glass, galvd. C.I. piping and fencing pales, etc., etc., for Madras and Southern Mahratta Rly Co. Directors, 25, Buckingham Palace-rd., S.W.1.
Pertrane.—Tank.—Ferro-concrete high level water tank, at Mental Hospital, for Joint Committee of Grangegorman Mental Hospital. Mr. P. H. McCarthy, engineer, 26, Lower Leeson-st., Dublin. Dep. £3 3s.

FEBRUARY 20.

Canterbury.—Heating.—New heating, hot water and other plant, at Poor Law Institution and Infirmary, for B.G. T. J. R. Kiernan, consulting engineer, 17, Victoria-st., S.W.1. Dep. £2 2s.

FEBRUARY 23.

Newry.—Bridge.—Singleleaf steel swing bridge over canal at Godfrey Bridge, for U.D.C. C. Blaney, Town Surveyor. Dep. £1 1s.

FEBRUARY 25.

Luton.—Extensions.—Six reinforced concrete tanks, with small pumping station, extensions of mains and other auxiliary works at Sewage Farm, Eaton Green-rd., for T.C. B.E. Dep. £2 2s.

NO DATE.

Portsmouth.—Alterations.—To entrance and lowering the sill of existing dry dock at Camber, for T.C. B. Handley, engineer.

ROAD, SEWERAGE, AND WATER WORKS.

FEBRUARY 13.

Darton.—Mains.—Supplying and laying of about 335 lin. yds. of 3-inch cast-iron water mains, together with appurtenant works, for purposes connected with a supply of water to Barugh Chemical Works, Barugh, near Barnsley, for U.D.C. P. Wilkinson, Waterworks Manager. Dep. £1.
Doncaster.—Roads.—Construction of roads and footpaths and construction of length of sewer on Woodfield-lane site, together with the formation of recreation ground on the Warmsworth-rd. (north) site, for C.B. R. E. Ford, Borough Engineer.
Manchester.—Sewering.—Also draining, paving (tarmacadam and concrete), flagging, and completing various roads on Blackley estate, Areas Nos. 2 and 5, for T.C. City E. Dep. £1 1s.
Manchester.—Sewering.—Also draining, kerbing, flagging, paving and completing: Town-planning road No. 50 and Nos. 1 to 12, on Ladybarn estate (Area No. 2), Withington, for T.C. City Engineer. Dep. £1 1s.
Mitcham.—Making-up.—Seely-rd., for U.D.C. S.
North Riding of Yorkshire.—Widening.—Also strengthening, re-surfacing, etc., of approximately 4¼ miles of main road, between Scarborough and Filey, for C.C. C.S.

FEBRUARY 14.

Barking.—Road and Sewer Work.—Formation and kerbing, etc., of roads and the construction of soil sewers and surface water sewers, manholes, ventilators, etc., on the Upney Farm Housing Estate for the Barking Town U.D.C. R. A. Lav, Assoc.M. Inst.C.E., B.S., Public Offices, Barking.
Barnes.—Making-up.—Lowther-rd., and Bicester-rd. (part 2), Mortlake, for U.D.C. F. P. Kindell, E. and S. Dep. £2 2s.
Barnes.—Making-up.—Warren-av., Mortlake, for U.D.C. F. P. Kindell, E. and S.
Bourne.—Mains.—Laying and jointing of about 450 yds. of 6-in. and 900 yds. of 4-in. cast iron water main, for U.D.C. Pick, Everard, Keay & Gimson, engineers, 6, Millstone-lane, Leicester. Dep. £1 1s.
Dublin.—Drainage.—Also provision of lavatories and sanitary fittings at Four Courts, for Commissioners of Public Works. T. Cassedy, secretary, Office of Public Works.
Nottingham.—Pipes.—Supplying, laying and jointing about 410 yds. of 5-in. diameter cast iron water pipes and specials, together with necessary valves, hydrants, and other appurtenant work in connection with supply of water to Aston Hall, Aston-on-Trent, for T.C. F. W. Davies, engineer. Dep. £2 2s.
Prestwich.—Making-up.—Sewering and draining of Chandos-rd., for U.D.C. M. A. Piercy, E. and S. Dep. £1 1s.
Prestwich.—Sewers.—Roads and sewers on line of Heys-rd. and Heywood-rd., and extension of Deyne Valley sewer, for U.D.C. S. Dep. £3 3s.
South Dublin.—Extensions.—Sewer extension: Kimmage-rd., Terenure, 380 yds. 9-in. and 400 yds. 6-in. stoneware pipe sewer. Water extensions: (a) Knocklyon-rd., Templeogue, 720 yds. 6-in. c.i. pipe; (b) Balrothery (Wellington-lane), 770 yds. 3 in. c.i. pipe; (c) Rathfarnham (St. Patrick's), 740 yds. 3-in. c.i. pipe, for R.D.C. G. Gallagher, C., 1, James's-st., Dublin. Dep. £1 1s.
Truro.—Relaying.—Taking up, redressing and relaying on a partly new concrete foundation, of about 250 yds. super of granite sett paving, and other works, for T.C. F. A. Barnes, City S. and E.

FEBRUARY 16.

Liskeard.—Macadam.—Providing and laying bituminous macadam upon St. Cleer, Redgate, and Minions-rd., for R.D.C. Wm. Cradick, Northern Surveyor, Addington, Liskeard.
West Bromwich.—Repairs.—Of roads at Guardians' institutions, Hallam-st., for B.G. A. H. Ward, C.
West Ham.—Making-up.—Roadways in Whipps Cross Hospital, Whipps Cross-rd., Leytonstone, E.11, for B.G. L. E. Fraquet, Clerk.

FEBRUARY 18.

Chapel-en-le-Frith.—Sewers.—404 lin. yds. of 6-in. and 9-in. diameter sewers, in parish of Hope, for R.D.C. Brady & Partington, chartered civil engineers. Dep. £1.
Eccles.—Surfacing.—Of Peel Green-rd., from Barton-rd. to Higher Croft, for T.C. B.S.
Oldham.—Pipes.—In connection with new power station, Slacks Valley, Chadderton, F. L. Ogden, Borough Electrical Engineer. Dep. £1 1s.
Wirral.—Making-up of Rocky-lane South, Heswall, for R.D.C. S. H. Davies, Highways Surveyor.

FEBRUARY 20.

Cork.—Macadam.—Laying about 69,000 super yds. of bituminous macadam on trunk road from Cork to Limerick, between Monard and Rathduff, for C.C. R. F. O'Connor, C.S.
Kent.—Pipelaying.—Pipelaying, alterations and bricklayers' work within areas of Kent, northern, southern and western districts, for M.W.B. Chief Engineer.
London.—Paving.—New wood block paving on reinforced concrete foundations in Commercial-rd., Peckham, S.E.15, for Camberwell B.C. W. Bell, B.E. and S.
London.—Pipework.—For Greenwich Power Station, for L.C.C. Montagu H. Cox. Dep. £2.
Swindon.—Extensions.—Construction of approximately 3¼ miles of 16-in. and ¾ mile of 12-in. trunk mains and other incidental works in parishes of Ogbourne St. George, Chiseldon, Wroughton and Swindon, for T.C. J. B. L. Thompson, B.S., 34, Regent-circus. Dep. £3 3s.

FEBRUARY 21.

Atherstone.—Drains.—Making up about 3,000 sq. yds. of roads and footpaths and laying about 1,500 lin. yds. of 9-in., 6-in., and 4-in. pipe sewers and surafce-water drains on Westwood housing site, for R.D.C. H. J. Coleby, E. and S.
Hailsham.—Roads.—Concrete roads at Polegate, near Eastbourne, for R.D.C. W. O. Humphery, E. and S. Dep. £2 2s.
New Zealand.—Deviation.—Construction of Wellington-Tawa flat deviation, Wellington-New Plymouth Railway, for Public Works Dept., Wellington. Commissioner for New Zealand, 415, Strand, London, W.C.2.

FEBRUARY 22.

Birmingham.—Widening.—Also reconstruction of Balden-rd., Harborne, for T.C. H. H. Humphries. City E. and S. Dep. £2.
***Plymouth.**—Roads.—Completion of, for the B.C., on Higher Mount Gould Housing Estate. J. Wiberley, B.E., Sun Buildings, Plymouth. Dep. £2 2s.

FEBRUARY 23.

Woodford.—Making-up.—Avenue-rd. and Charteris-rd., for U.D.C. A. D. Ward, S.

FEBRUARY 24.

Cumberland.—Surface tarring.—For C.C. G. O. Lockwood, C.S.
Sowerby.—Conversion of sewage disposal works to the simplex surface aeration system, for U.D.C. J. Eastwood, S. Dep. £3

FEBRUARY 25.

Huyton-with-Ruby.—Conversion.—Of 27 privies and 10 pail closets to water closets, for U.D.C. Sanitary Inspector. Dep. £2.
Pontefract.—Making-up.—Part of Headlands-lane and street, off Sessions House-yard, for T.C. W. H. Newton, B.E. Dep. £2 2s.

MARCH 6.

Bangor.—Reconstruction.—Abbey-st., Upper Main-st., Hamilton-rd., Bingham-st., for T.C. J. Milliken, T.C. Dep. £5.

NO DATE.

Ballymena.—Mains.—Laying of 332 yds. 10-in., 184 yds. 8-in., 850 yds. 6-in., 293 yds. 4-in. cast iron gas mains, for U.D.C. C. W. Surman, engineer.

Auction Sales, Tenders, etc.

FEBRUARY 15.

***East Sheen.**—Barnes, Kirkwood & Woolf will sell, at the Barker estate, East Sheen, builders' and contractors' plant and material. Auctioneers, 86, Baker-st., W.1.

FEBRUARY 16.

***Eltham, Kent.**—F. H. Clark will sell without reserve timber and building materials recovered from demolition of Government hostels, Archery and Glenlea-rds., Eltham. Auctioneers, Exhibition Grounds, Wembley Park, Middlesex.
***Canning Town.**—W. W. Howard Bros. & Co., in conjunction with Joseph Hibbard & Sons, will sell without reserve at Crown Wharf, Canning Town, London, E.16, stock of Japanese oak and other stocks laying at Crown Wharf, Canning Town. Auctioneers, 15, Newington-green, Islington, N.16.

FEBRUARY 22.

***North Cheam.**—Hooker & Rogers.—On the site adjoining Victoria public-house, London-rd. Building materials. Auctioneeers, 4, High-st., Croydon.

NO DATE.

***Pinner.**—Ernest Owers, Ltd., will sell at the London Auction Mart, 155, Queen Victoria-st., E.C.4, Dove House, Hatch End, Pinner, the estate comprising a medium-sized residence, with cottages, garages, etc., and parklands, the whole extending to about 23¼ acres. Auctioneers, West Hampstead (Met.) Station, N.W.6.
Windsor.—Knight, Frank and Rutley will sell in blocks or in numerous lots (unless disposed of privately), by direction of the Council of the Imperial Service College Trust, freehold building land on the western fringe of the Royal Borough. Auctioneers, 20, Hanover-sq., London, W.1.

Public Appointments.

FEBRUARY 13.

Southend-on-Sea.—Principal required at the Municipal School of Arts and Crafts by the Southend-on-Sea Education Committee. John Sargent, Director of Education, Education Office, 20, Warrior-sq., Southend-on-Sea.

FEBRUARY 17.

***Guildford.**—Clerk of Works.—At new Pumping Stations. Percy Griffiths, E., 39, Victoria-st., Westminster, S.W.1.

FEBRUARY 18.

***London.**—Assistant Secretary.—The Chairman of the Board of Finance, The Incorp. Assn. of Architects and Surveyors, 1, Wilbraham-place, S.W.1.

MARCH 6.

***Essex.**—Architectural Assistant required on the temporary staff in the County Architect's Dept. by the Essex County Council. Jno. Stuart, F.R.I.B.A., County Architect, Springfield Old Court, Chelmsford.

MAY 24.

***London.**—Forthcoming Examination.—Male cartographers in the hydrographic dept. of the Admiralty (19-25, with extension in certain cases). The Secretary, Civil Service Commission, Burlington-gardens, London, W.1.

Proposed New Hippodrome, Doncaster.

Mr. J. Farnsworth, architect, 17, St. Margaret's-drive, Chesterfield, is preparing the plans for a local syndicate for the erection of a new hippodrome at Rossington Village, having seating accommodation for 1,500 persons.

The Railway Companies and Road Transport.

The question of the attitude to be taken by industry towards the Bills promoted by the railway companies for powers to run road transport was one of the main subjects under discussion at the Grand Council meeting of the Federation of British Industries at Princes' Restaurant last week. The following resolution was put to the meeting by Lord Gainford, who presided, and was carried unanimously:—

"That the Council appoints a Committee, to be selected by the President and Past Presidents, to consider what amendments to the Railway Companies' Transport Bills are necessary to safeguard the public interests and users of transport, and empowers this Committee to negotiate with the Railway Companies with a view to the inclusion of such amendments in the Bills, and, failing success in such negotiation, to approach the Government with a request for a full inquiry before the Bills receive a second reading. Meanwhile, in order to retain the Federation's freedom of action, any necessary formal steps should be taken to maintain the Federation's status to deal with the matter in Parliament, should this prove necessary."

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect C.A.; Surveyor, S.; Engineer, E.; Borough Architect, B.A.; Architect, A.

Alton.—U.D.C. decided to adopt, in principle, recommendations made by H. Rofe and Sons, water engineers, for the reconstruction of water works, at £10,000.

Altofts.—Plans been approved for offices in St Mary's-rd., for J. Hargreave.

Barnham.—Southern Rly. junction station is to be altered, at a cost of £27,300.

Barnoldswick.—Members of Barnoldswick Baptist Church have scheme under consideration for building Sunday schools for about 400 scholars.

Barnsley.—Barnsley Brewery Co., Ltd., propose to erect licensed houses on site with frontage to Birk-av., Kendray housing estate.

Becontree.—Rector of SS. Peter and Paul's parish, Ilford, received communication from B. of E. approving proposal for school for about 350 children. Plans by F. A. B. Scott, L.R.I.B.A., 11 and 12, Finsbury-sq., E.C.1.

Billingham.—U.D.C. passed plans: 14 houses, Station-rd., Billingham, H. Scotson; billiard hall, Hope-st., T. Malcolm; hall for child welfare centre, Housing and Town Planning Trust.

Blackpool.—T.C. passed plans: 4 houses, Ryson-av., J. Gregson; 2 houses and garages, off Norbreck-rd., R. Jackson; 14 houses, Selby-av., H. Henson; 3 houses, Lyndhurst-av., —. Mercer; 4 houses, Boardman-av., Hornby Building Co.; 3 houses and garages, Ventnor-rd., Leach & Unsworth; 6 houses, South Park-drive, J. E. Dugdale; 4 houses, Sawley-av., Branley-Smith; 3 houses, Jackson-st., W. Tasker; 7 houses, Croydon-rd., W. Tasker; 9 houses, Croydon-rd., W. Tasker; 6 houses, Riversleigh-av., J. R. Fielding; 4 houses, Cavendish-av., R. Brown & Son; 4 houses, Cavendish-av., R. Brown & Son.

Bolton.—T.C. passed plans: N. O. Halliwell, 8 houses, Seaton-rd.; J. Uttley, 4 houses, Leighton-av.; Redheads, alteration to premises, Knowsley-st.; District Bank, alteration to bank, Halliwell-rd.; Ormrod, Hardcastle & Co., Ltd., widening of passage in yard, Parrot-st. Mills; Bond & Co., Ltd., extension to weaving shed and new boiler-house, Milton Mills, Mule-st.; J. H. Cartwright, 18 houses, Henrietta-st.; Trustees of Chorley Old-rd. Wesleyan Church, extension to classrooms, Chorley Old-rd.—Empire Picture Theatre (Farnworth), Ltd., King-st., Farnworth, propose to make improvements. Plans by G. Henderson, architect and surveyor, 17, Acresfield.

Bradford.—Corporation decided to go forward with scheme for 44 houses on White Abbey estate and 238 houses on Whetley Fields estate.

Brighton.—£86,000 is to be spent by Southern Rly., on alterations at Brighton station.

Burnley.—T.C. passed plans for 4 houses at rear of St. Cuthbert's-st., by J. Faulkner.

Canford.—A new wing, estimated to cost £40,000, to contain form-rooms, studies, dormitories, etc., is to be added to Canford School, Dorset.

Carlisle.—Wesleyan Congregational Chapel Committee approved scheme for Wesleyan Chapel on site at Wigton-rd. Plans by A. Brocklehurst & Co., F.R.I.B.A., architects, 10, Norfolk-st., Manchester.

Chalfont.—Local Council contemplate building 108 cottages.

Chislehurst-Orpington.—New station is to be erected at £22,700 for Southern Rly.

Chorley.—T.C. approved lay-out of Marlborough st. site, where it is proposed to erect 50 houses.

Colne.—T.C. received M.H. sanction to £26,682 for erection of 52 houses.

Consett.—Vicar, Rev. W. C. D. Fedden, of Consett Church, has explained scheme which been prepared by architect, Mr. Eltringham, and approved by the B. of E., for improvements to church Scheme is estimated to cost £3,500.

Coulsdon and Purley. — Surveyor has been instructed to prepare plans for pavilion in Memorial Ground. U.D.C. have passed following plans:—Lawes Cherry & Co., 9 houses, Brancaster-lane, Purley; S. C. Kirby, 3 detached houses, Riddlesdown-rd., Purley; H. B. Williams, detached house, The Ridgway, Sanderstead; A. Chilton, detached house, Plot 18, Riddlesdown-rd., Sanderstead; Mrs. A. Budgen, detached house, south side of Brambledown-rd., Sanderstead; H. S. Sewell, detached house, Woodcote Valley-rd., Purley; A. E. Stent, 2 houses, Riddlesdown-rd., Purley; Thomas & Son, 2 houses, Woodmansterne-rd., Coulsdon; Thomas & Son, 13 houses, South Drive, Coulsdon. Application to be made by U.D.C. to M.H. to borrow £4,800 to purchase land for fire-station at Brighton-rd.

Coventry.—Plans passed by T.C.: 12 houses, Dorset-rd., and 4 houses, Widdrington-rd., J. G. Gray; 4 lock-up shops, garages, etc., Foleshill-rd., W. H. Grant; reconstruction "Opera House," Hales-st., Bennett Theatres, Ltd.; roadway bridge and cycle shed, Gosford-st., Morris Motors (1926), Ltd.; factory, Aldbourne-rd., Riley Engine Co.; store sheds, Hood-st., British Thomson-Houston Co., Ltd.; 6 houses, Beresford-av., and 37 houses, Medina-rd., W. R. Lane; lock-up garages, Boston-place, H. Hardakre; 4 houses, Browett-rd., Bayliss Bros.; street, off Durbar-av., and street, off Victory-rd., for Newcombe Estates Co., Ltd.; bank premises, 599, Stoney Stanton-rd., for Barclays Bank, Ltd.; 2 houses with shops, North-st., and house, Milton-st., W. H. Harvey.

Cowes.—Medina Wharf, Cowes, Isle of Wight, is to be reconstructed at £84,000, for Southern Rly.

Croydon.—South Suburban Co-operative Society, Ltd., approved plans of an additional block of showrooms to Central Stores in London-rd. Bethell, Swannell & Durnsford, architects, 16a, John-st., W.C.2.

Cudworth.—S. Smith's Old Brewery, Ltd., of Tadcaster, contemplate erection of hotel on Snydale-rd., site.—P. A. Hinchliffe, architect, Regent-st., Barnsley, prepared plans for hotel at Darfield-rd., on behalf of Barnsley Brewery Co.

Dagenham.—W. H. Brown proposes to build 10 shops on site in Onslow-lane. Plans by Meredith & Verlyck, 7, Goodmayes-rd., Goodmayes.

Dartford.—Proprietor of Dartford "Rialto" Cinema proposes to considerably improve and extend his theatre. Plans by G. E. Burgess, Station Approach.

Finchley.—Scheme for enlargement of the Finchley Parish Church has proceded a little further, and petition to Chancellor of Diocese for permission to carry out work been sent. Alterations, it is estimated, will, if carried out, cost £7,000, and will provide additional accommodation for 220.—M. of H. has sanctioned building of 54 houses in Summers-lane.

Goole.—Scheme including erection of new schools and a residence for priest, in connection with St. Paul's Church, Goole, been submitted to local Church Council. Cost is estimated at between £3,000 and £4,000.

Grays.—Committee of Working Men's Club have decided to build new club premises to plans by Meredith & Verlyck, 7, Goodmayes-rd., Goodmayes. mayes.

Halifax.—Plans passed by T.C. for T. Ramsden & Sons, Ltd., for new hotel in Hunger-hill.

Haverfordwest.—R.D.C. considering erection of bridge at Sylnan Wdolen.

Hertford.—T.C. received M.H. approval to proposed housing scheme for 152 houses at New-rd., Bengeo. Tenders are now being invited.

Hounslow.—Plans been approved for 7 shops and flats in Bath-rd. P. Chase Gardener & Co., architects, 269, High-st.

Huddersfield.—Abbey & Hanson, L.R.I.B.A., architects, 11, Cloth Hall-st., preparing plans for extensions in King-st., for Kaye & Co., drapers.

Kent.—Over £105,000 is to be spent by S.R. Co. on widening main line at Kent House and Beckenham junction.

Kew.—Included in Southern Rly.'s new plans for development is a new goods yard at Kew Bridge, at £18,000.

Leyton.—T.C. approved plans by J. A. Dartnall for War Memorial Hall, Wesleyan Chapel, High-rd., Leytonstone.

Lincoln.—Lindsey C.C. authorised following expenditure:—£2,400 for alteration and enlargement of East Halton School; £14,850 for Council School at Brigg; £19,200 for Council School at Sandfield-lane, Gainsborough; £342 for site of Council School at Alford; £102 for site of Council School at Denington on Bain.

London (Battersea).—London Co-operative Society propose erecting new shops at Northcote-rd.

London (Wimbledon).—B.C. approved revised plans by B.S. for clinic and child welfare centre, at £6,000.—Plans for extension to boiler-house at electricity generating station, prepared by the B.E. also been approved.—B.C. approved scheme prepared by B.S. for 24 non-parlour type houses on sites fronting Durnsford-rd.; and for 44 and 4 blocks of three-storied flats on triangular plot of land off Durnsford-rd. Tenders are to be invited.

Lytham.—Proposed scheme to bridge the River Ribble between Lytham and Preston on north bank, and Southport and Preston on south bank, been explained to Lytham St. Anne's councillors by G. Bennie, of Glasgow, principal of George Bennie Railplane Trust. Scheme is estimated to cost £750,000.

Maltby.—U.D.C. approved plans submitted for extensions to St. Bartholomew's Church Schools.

Manchester.—H. H. Gaffney, Barlow Moor-rd., Chorlton-cum-Hardy, has acquired a site at Barlow Moor-rd., for 12 houses.—H. L. Freshney, Willoughby House, Heaton Chapel, near Stockport, has acquired land at Didsbury, for 40 houses.—Rev. R. W. Petch, rector of St. Paul's Church, Kersal, is proposing to erect rectory at junction of Vine-st., and Neville-rd., Broughton. Plans by Taylor & Young, F. & A.R.I.B.A., architects, Chapel Walks.

Mansfield.—T.C. propose to erect 100 houses on Ravensdale estate.

Meriden.—Plans sanctioned by R.D.C.: 12 houses, at Castle Bromwich, for Morris, Jacombs, & Sons, Ltd.; 2 houses, at Water Orton, for C. F. Barradell; 2 houses, at Allesley, for Gazey Bros.; 14 houses, at Coleshill, for J. C. Payne, Ltd.; sub-station, at Castle Bromwich, for British Industries Fair.

Middlestown (Yorks).—Middlestown Co-operative Industrial Society, Ltd., are to erect shops with a public hall capable of seating 500 people, at £4,000.

Milton.—R.D.C. approved 4 houses in Broad View-av., for C.E. Andrews.

Mossley.—W. T. Rothwell, Ltd., Newton Heath, proposing to make improvements to Arundel Hotel. Plans by W. Johnson & Sons, architects, 27, Oldham-rd., Miles Platting, Manchester.

Nelson.—T.C. approved amended plans of proposed new open-air school on Marsden Hall estate.

Newcastle-under-Lyme.—T.C. passed plans for 6 houses each on Hill Farm estate, for E. Kinson and T. Hughes.

Newhaven.—Reconstruction of East Pier, at £85,000, for Southern Rly., been approved.

Oldham.—The E.C. are to make provision for erection of school on Limeside estate to accommodate 500 children.—T.C. passed plans: A. Redfern & Sons, 5 houses, Burlington-av.; F. Lord, 12 houses, Esther-st. and Hollinghall-st.; Hawthorne & W. & H. Bloor, Ltd., 24 houses, Oriel-av.

Ongar.—Drill hall, with armoury and stores, is to be built by Essex County Territorial Force Association, Chelmsford. Hugo R. Bird, L.R.I.B.A., architect, Brentwood.

Oswaldtwistle.—Lancashire C.C. approved sketch plans prepared by C.A. for school at Moor End.

Outwood.—P.C. decided to apply to Lancashire C.C. to provide day school in Ringley-rd. district.

Plymouth. — C.B. proposes £8,437 smallpox hospital at Lee Mill. C.B. has approved following plans:—E. Hender, 5 houses, Glendower-rd.; H. L. Pile, 2 houses, West Down-rd.; Hayter & Coles, 10 houses in new street off Gwyn-rd.; J. R. Randall, assembly hall, etc., rear of 28-32, Mutley Plain. Borough Surveyor has been asked to prepare plans for public abattoir. Repairs and renovations at £750 have been sanctioned by C.B. at Devonport Branch Library.

Reading.—Southern Rly. are to improve goods shed and office accommodation, at £20,000.

St. Helens.—T.C. passed plans: 6 houses, Smith-st., J. B. Williams; 8 houses, Mill-lane, S. Huyton; additions to premises, Lugsmore-lane, St. Helens Industrial Co-op. Society; 6 houses, Freckleton-rd., Mrs. G. Sills and Messrs. Swift & Maddison; 5 lock-up garages, yard of premises, Claughton-st., C. B. Oxhey & Son.—St. Helens Racecourse Co., Ltd., are promoting scheme for greyhound racing track at St. Helens Junction. Plans by J. Elston, architect, Market-st., Earlstown.

Salford.—Board of Management of Salford Royal Infirmary have acquired premises in Adelphi-st., which they propose to utilise for extensions. Plans by Dr. P. S. Worthington, F.R.I.B.A., 178, Oxford-rd., Manchester, and Mr. P. Barker, F.R.I.B.A., King-st., Manchester.

Scarborough.—Boots' Pure Drug Co. are reconstructing their premises in Newborough, at £20,000. Plans by P. Bartlett, Architects' Dept., Boots' Pure Drug Co., Station-st., Nottingham.—Plans and estimates amounting to £2,000 for conversion of 89 and 89a, Westborough, into showrooms been approved. Tenders are to be invited and applications to be made to borrow necessary money.—Plans submitted by F. Rowntree & Sons, on behalf of W. Rowntree & Sons, for construction of York-place improvement in direction of Friends Meeting House been approved.

Seaton.—Southern Rly. are to make alterations to station, at £46,000.

Sheffield.—T.C. passed plans: 2 houses and garages, Abbey-lane, Sumner & Tate; 6 houses and shops, Hutcliffe Wood-rd., Smith & Hawley, Ltd.; 2 houses and garages, Sandford Grove-rd., W. A. Wright; 4 houses and shops, City-rd., W. Croft.—The Governors of University are having scheme prepared for erection of building to make provision for mining department. Plans by Gibbs, Flockton & Gibbs, FF.R.I.B.A., 15, St. James-row.—Sheffield and Eccleshall Co-operative Society, Ltd., proposing to make large extensions to premises at The Arcade.

Southend-on-Sea.—Plans have been prepared by Mr. Cecil Macey, L.R.I.B.A., Devereux-court, Strand, W.C.2, for conversion of Palace Hotel, on front, into a cinema theatre capable of seating 2,000 persons.

Sudbury.—Committee which has been appointed to consider housing conditions in the town recommend erection of more houses.

Taunton.—T.C. decided to apply to M.H. for permission to accept following housing tenders for 64 concrete houses at £21,600 and 64 brick houses at £22,240.

Tottenham.—Plans approved by U.D.C. included following: 14 houses, Sherringham-av., H. & G. Rowley; 6 houses, Brantwood-rd., W. Woodhouse; 8 houses, Mafeking-rd., R. C. Allen.

Wellfield.—Durham C.C. are to erect school under supervision of Education Architect, amounting to £27,760.

West Auckland.—Durham C.C. have decided to erect school by direct labour at £8,568.

West Stanley.—Site for proposed new Council school at Shield-row is to be purchased from the West Stanley Urban Council for £1,537.

Weymouth.—T.C. passed plans for C. H. White, proposed Sunday School extension, Baptist Church, Bank-buildings.

Yeovil.—R.D.C. decided to carry out additional housing schemes in four parishes.

*See also our List of Contracts, Competitions, etc.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.	£ s. d.
Best Stocks	4 5 6
Second Hard Stocks	3 19 6

Per 1,000. Delivered at London Goods Stations.	£ s. d.
Flettons, at King's Cross	2 12 3
Do., grooved for Plaster	2 14 3
Do., Bullnose	3 6 3
Best Stourbridge Fire Brick :—	
2½ in.	8 11 0
3 in.	10 3 0

Glazed Bricks—			
Best White Ivory, and Salt Glazed Stretchers	21	0	0
Headers	20	10	0
Quoins, Bullnose and 4½ in. Flats	27	10	0
D'ble Str'tch'rs	29	10	0
D'ble Headers	26	10	0
One Side and two Ends	30	10	0
Two Sides and one End	31	10	0
Splays and Squints	28	0	0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.
Delivered London.

	s. d.		s. d.
2 in. per yd. super.	1 11	3 in. per yd. super.	2 9
2½ in. ,, ,,	2 4	4 in. ,, ,,	3 6

	s. d.	
Thames Ballast	10 6	per yd.
Pit Sand	13 9	,, ,,
Thames Sand	14 6	,, ,,
Best Washed Sand	14 6	,, ,,
½ in. Shingle for Ferro-Concrete	12 9	,, ,,
¾ in.	14 0	,, ,,
¾ in. Broken Brick	11 6	,, ,,
Pan Breeze	8 0	,, ,,

} delivered 2 miles radius Paddington

Per ton delivered in London area in full van loads.

Best Portland Cement. British.
Standard Specification. Test £2 13 0 to £2 15 0
40s. alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0 10 0
Super Cement (Waterproof)	4 3 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
,, ,, Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
,, ,, White	3 12 6
,, Fine	5 12 0
Sirapite, Coarse	3 9 0
,, Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	1 17 6
Hair per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.
Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp.

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 10
BEER STONE—RANDOM BLOCK— Free on rail at Seaton Station, per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. per ft. cube	3 1½
Selected approximate size one way, 1d. per cubic foot extra ; selected approximately three sizes or for special work, 3d. per cubic foot extra.	
PORTLAND STONE.— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S.Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road wagons at above stations, per ft. cube	4 5½
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE— Delivered at any Goods Station, London.	s. d.
Random blocks, from 10 ft. and over P. ft. cb.	17 0
Sawn two sides ,,	27 0
Sawn three or four sides ,,	32 0
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 30 ft. super) Per ft. super	5 6
6 in. rubbed two sides, ditto ,,	6 0
3 in. sawn two sides slabs (random sizes) ,,	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) ,,	1 6½
1½ in. to 2 in. ditto, ditto ,,	1 3½
HARD YORK— Delivered at any Goods Station, London.	
Scappled random blocks Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) Per ft. super	5 1½
6 in. rubbed two sides, ditto ,,	6 1½
4 in. sawn two sides slabs (random sizes) ,,	2 1½
3 in. ditto ditto ,,	2 10
2 in. self-faced random flags .. Per yd. super.	8 8

CAST STONE.

Delivered in London area in full-van loads, per ft. cube:—Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£30 0	3 × 6	£21 0
4 × 9	26 0	3 × 11	25 0
4 × 8	25 0	2 × 11	26 0
4 × 7	23 0	3 × 9	24 0
3 × 8	22 0	2½ × 9	24 0
3 × 7	22 0	3 × 4½	21 0
2½ × 7	21 0	3 × 4	21 0

PLANED BOARDS.

1	×	11	£30 0	1	×	9	£28 0

PLAIN EDGE FLOORING.

Inches	per sq.	Inches.	per sq.
¾	18/-	1¼	30/-
¾	21/-	1½	34/-
1	24/-		

TONGUED AND GROOVED FLOORING

Inches.	per sq.
1	24/-
1¼	30/-
1½	34/-

MATCHING (BEST).

Inches.	per sq.
¾	16/6
¾	19/-
1	24/-

Ins. BATTENS.	s. d.
¾ × 2 ....per 100 ft.	2 6

SAWN LATHS.	s. d.
Per bundle	2 6

1" AND UP THICK.

	£ s. d.		£ s. d.
Dry Austrian Wainscot, per ft. cube	0 16 0	to	0 18 0
Dry American and/or Japanese Figured Oak, ft. cube	0 14 0	to	0 15 0
Dry American and/or Japanese Plain Oak, ft. cube	0 10 0	to	0 13 0
Dry sq. edged Honduras Mahogany, ft. cube	0 15 0	to	0 18 0
Dry Log cut Honduras Mahogany, ft. cube	0 16 0	to	1 1 0
Dry Cuba Mahogany, ft. cube	1 1 0	to	1 10 0
Dry Teak, ft. cube	0 13 0	to	0 15 0
Dry American Whitewood, ft. cube	0 10 0	to	0 14 0
Best Scotch glue, per cwt.	4 10 0	to	—
Liquid Glue, per cwt.	4 7 0	to	5 10 0

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000.

	£ s. d.		£ s. d.
24 by 12	32 18 4	18 by 10	18 12 11
22 by 12	29 17 11	18 by 9	16 9 2
22 by 11	27 14 2	16 by 10	15 12 6
20 by 12	26 5 0	16 by 8	12 3 9
20 by 10	22 10 0		

TILES.

Delivered at London rate stations in full truckloads of not less than 6 tons. Per 1,000 f.o.r. London.

Best machine-made tiles from Broseley or Staffordshire district	5 7 6
ditto hand-made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles (per dozen) Hand-made	0 9 6
Hip and valley tiles (per dozen) Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—	£ s. d.
R.S. Joists, cut and fitted	12 10 0
Plain Compound Girders	14 10 0
,, ,, Stanchions	16 10 0
In Roof Work	19 10 0

MILD STEEL ROUNDS.—To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	12 0 0	⅝ in. to ¾ in.	10 15 0
⅝ in.	11 0 0	⅞ in. to 2¾ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Tubes. Wrought Mild Steel.	Tubes. Genuine Staffs. Iron.	Fittings. ½ in. and under.	Fittings. Over ½ in.	Flanges. ½ in. and under.	Flanges. Over ½ in.
	%	%	%	%	%	%
Gas	67½	50	42½	45	52½	55
Water	63½	46½	37½	40	47½	50
Steam	60	42½	32½	35	42½	45
Galv. gas	55	37½	32½	35	42½	45
Galv. water	50	32½	27½	30	37½	40
Galv. steam	45	27½	22½	25	32½	35

C.I.—HALF-ROUND GUTTERS—London Prices ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/3½	11½d.	3½d.
3½ in.	1/4½	1/1½	3½d.
4 in.	1/6	1/3	3½d.
4½ in.	1/7½	1/4½	4½d.
5 in.	1/10½	1/6½	5½d.

O.G. GUTTERS.

3 in.	1/8	1/4½	3½d.
3½ in.	1/8	1/4½	3½d.
4 in.	1/9½	1/4½	3½d.
4½ in.	1/11½	1/7½	4½d.
5 in.	2/4½	1/10½	5½d.

RAIN-WATER PIPES, &c.

per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/10½	1/3	1/9½
2½ in. ,,	2/0½	1/4½	2/1½
3 in. ,,	2/6	1/9	2/7½
3½ in. ,,	2/11½	2/0½	3/0½
4 in. ,,	3/5	2/6½	3/8½

L.C.C. COATED SOIL PIPES—London-Prices ex Works

	Pipe. s. d.	Bends. stock angles. s. d.	Branches. stock angles. s. d.
2 in. per yd. in 6 fts. plain	3 3	2 4½	2 10
2½ in. ,,	3 9	2 7½	3 7
3 in. ,,	4 6	2 10	4 2½
3½ in. ,,	4 11½	3 7	4 11½
4 in. ,,	5 5½	4 0½	5 9

L.C.C. COATED DRAIN PIPES—London-Prices ex Works.

	Pipe, stock angles. s. d.	Bends, stock angles. s. d.	Branches. stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 4	5 1	8 0½
4 in. ,, ,,	6 2	5 8	10 0
5 in. ,, ,,	7 2	10 10	17 1
6 in. ,, ,,	8 6	13 2	21 9

Gasken for jointing, 38/6 per cwt.

	Per ton in London. £ s. d.		£ s. d.
IRON— Common bars	13 0 0	to	14 10 0
Staffordshire Crown Bars— Good merchant quality	14 5 0	to	15 15 0
Staffordshire Marked Bars	16 5 0	..	17 5 0
Mild Steel Bars	10 0 0	..	11 0 0
Steel Bars. Ferro-Concrete quality, basis price	10 0 0	..	11 0 0
Hoop iron, basis price	12 0 0	..	13 0 0
,, Galvanised	27 0 0	..	28 0 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	13 5 0	..	14 5 0
,, ,, ,, 24 g.	14 5 0	..	15 5 0
,, ,, ,, 26 g.	16 5 0	..	17 5 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 2 g.	15 10 0	..	16 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	16 10 0	..	17 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	18 10 0	..	20 10 0
No. 1 quality £4 per ton extra.			
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	18 0 0	..	19 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	18 10 0	..	19 10 0
Ordinary sizes 6 ft. to 9 ft. to 26 g.	21 10 0	..	22 10 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	22 0 0	..	23 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 0 0	..	26 0 0
Best Soft Steel Sheets, 26 g.	25 10 0	..	26 10 0
Cut Nails, 3 in. to 6 in.	19 0 0		

(Under 3 in. usual trade extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	29 10 0
Pipe in coils	30 0 0
Soil pipe	33 0 0
Compo Pipe	31 10 0

NOTE.—Country delivery, 20s. per ton extra ; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes. 5s. cwt. extra.
Oil lead, ex London area, at Mills per ton 20 5 0

COPPER.

	s. d.
Seamless Copper tubes (basis) per lb.	1 0½
Strong sheet ,,	1 0
Thin ,,	1 1
Copper nails ,,	2 3
Copper wire ,,	2 4

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz

CAPS AND SCREWS.

1¼ in.	1½ in	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps	33/-	41/	56/-	101/-	per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/-	,,

TIN.—English Ingots, 3/1 per lb. SOLDER.—Plumber's 1/3, Tinmen's 1/6, Blowpipe 1/7 per lb.

PAINTS, &c.

			s. d.
Raw Linseed Oil, in pipes	per gallon	0	2 11
,, ,, ,, in barrels	,,	0	3 1
,, ,, ,, in drums	,,	0	3 3
Boiled ,, ,, in barrels	,,	0	3 3
,, ,, ,, in drums	,,	0	3 6
Turpentine in barrels	,,	0	3 10
,, in drums (10 galls).	,,	0	4 0
Genuine Ground English White Lead, per ton (in not less than 5 cwt. casks.)		47	5 0

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

PAINTS, &c. (*contd.*)

		£	s.	d.
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganawyte," "Polacco," "J." Brand, and other best brands (in 14 lb. tins) not less than 5 cwt. lots	per ton delivered	66	15	0
Red Lead, Dry (packages extra) ..	per ton	38	10	0
Best Linseed Oil Putty	per cwt.	0	15	0
Filicol	"	0	15	6
Size. XD quality	ftkn.	0	3	6

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per ft.		Per ft.
15 oz. fourths ..	2½d.	32 oz. fourths	6½d.
15 " thirds ..	3½d.	32 " thirds.....	9½d.
21 " fourths ..	4d.	Obscured Sheet, 15 oz.	3½d.
21 " thirds....	4½d.	" " 21 "	4½d.
26 " fourths ..	4½d.	Fluted 15oz.6½d., 21oz.	9d.
26 " thirds....	6½d.	En'lled 15 oz.4½d.,21oz.6½d.	

Extra price according to size and substance for squares cut from stock

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per ft.
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic Stippolyte, and small and large Flemish White	5½d.
Ditto, tinted	5½d.
Rolled Sheet.....	4½d.
White Rolled Cathedral.....	4½d.
Tinted do.	6½d.

Cast plate is same price as rough rolled.

VARNISHES, &c.

		Per Gallon. £	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Copal Carriage.....	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	0
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting.....	ditto	1	0	6
Hard Drying Oak	ditto	0	18	0
Fine Hard Drying Oak	ditto	0	19	0
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	2	0
Best ditto	ditto	1	12	0
Best Japan Gold Size		0	12	6
Best Black Japan		0	10	6
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black		0	7	6
Berlin Black		0	14	6
Knotting (patent).....		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebine.....		0	9	0
Cuirss Black Enamel.....		0	7	0

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rate of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers—Masons',‡ Bricklayers'‡ Plasterers'.†
Aberdeen	1/8	1/8½	1/8	1/8	1/8	1/8	1/7	10½d. to 1/1
Airdrie	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3
Alexandria	1/8	1/8	1/8	1/8	1/8	1/8	—	1/2½ to 1/3½
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1
Ayr	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3
Bathgate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2 to 1/3
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/-
Bo'ness.....	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Coatbridge	1/8	1/9	1/8	1/8	1/8	—	1/6½	1/3½
Dumbarton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Dumfries	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/6½	1/2
Dundee	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Dunfermline	1/7½	1/7½	1/7½	1/9	1/7½	1/7½	1/7½	‡1/2½ †1/3–1/3½
Edinburgh.....	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Galashiels	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Glasgow.....	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Hamilton	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½
Hawick	1/7	1/7	1/7	1/7–1/7½	1/7	1/7	1/7	1/2½
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Inverness	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/- to 1/2
Kilmarnock	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Kirkcaldy	1/7½	1/7½	1/7½	1/9	1/7½	1/7½	1/7½	‡1/2½ †1/3–1/3½
Kirkwall	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/-
Lanark	1/8	1/8	1/8	1/9	1/8	1/8	1/6	1/- to 1/2
Leith	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Motherwell	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½
Perth	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3
Stirling	1/7½	1/7½	1/7½	1/9	1/7½	1/7½	1/7½	1/2½
Stirlingshire (Eastern District)	1/8–1/10	1/8–1/10	1/8	1/9	1/7	1/8	1/6½	1/3½
Wishaw	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 274.

THE SCOTTISH BUILDER

INCORPORATION OF ARCHITECTS IN SCOTLAND

The monthly meeting of the Council of the Incorporation of Architects in Scotland was held at 15, Rutland-square, Edinburgh, Mr. G. P. K. Young, F.R.I.B.A., Perth, presiding. It was reported that five out of six candidates who had sat for the R.I.B.A. final examinations held in Edinburgh in December had been successful. Among the items of business considered were nominations for direct election to Fellowship of the R.I.B.A., the Architects' Registration Bill, 1928, and Chapter Rules and Regulations. Mr. J. F. Wyness, 45, Salisbury Terrace, Aberdeen; Mr. John Maclennan and Mr. W. A. Davidson, both of 16, Bridge-street, Aberdeen; Mr. J. W. Ritchie, 17, Great Stuart-street, Edinburgh; and Mr. H. J. Muir, 31, York-place, Edinburgh, were elected as Associates; while Mr. R. T. Donaldson, 375, Union-street, Aberdeen, was elected as a student member.

NEW BUILDINGS IN SCOTLAND

Arbroath.—EXTENSION.—Consequent upon the intimation of a grant of £11,000 from the residue of the estate of the late Sir James Duncan, Kennettles, Forfar, Arbroath Infirmary directors have appointed a Building Committee to arrange for the preparation of plans for the carrying out of the extensions.

Aberdeen.—WIDENING.—The Finance Committee of the T.C. recommend, subject to an arrangement being come to with the Streets and Roads Committee, the widening of Market-street at its junction with Union street.

Glasgow.—SLUM CLEARANCES.—The Corporation have considered the details of the proposed improvement schemes in three areas of the city—central, northern, and eastern divisions.

Glasgow.—EXTENSIONS.—A scheme for the extension and improvement of the Glasgow Alhambra has been outlined at the annual meeting of the company. It is estimated that the cost of the property recently acquired and extensions will be approximately £45,000.

Aberdeen.—TRACK.—Mr. T. S. Sutherland, architect, Aberdeen, has supplied plans for the proposed Aberdeen greyhound racing track which is to be laid out on the Seaton estate on the east side of King-street, adjacent to the Bridge of Don.

Eyemouth.—HOUSES.—The Town Council has invited tenders for the erection of twelve houses. Application is to be made to Mr. T. Small, Burgh Surveyor.

Burntisland.—HOUSES.—Sixty more houses are to be erected on the Haugh housing site for the Town Council. Mr. J. A. Waddell is the Burgh Surveyor.

Aberdeen.—HOUSES.—The Housing Committee of Aberdeen Town Council agreed to recommend to the Town Council, subject to the approval of the Scottish Board of Health, that 284 concrete houses be built on the ground between Pittodrie-street and Linksfield-road.

Glasgow.—SCHOOL.—The Glasgow Education Authority are considering the erection of a new secondary school at Shawlands. It is proposed to provide accommodation for about 780 pupils.

Glasgow.—BUILDINGS.—The Dean of Guild Court has granted the following linings:—Victoria Infirmary—additions and alterations to infirmary, Langside-road; James Templeton & Co., carpet manufacturers—to erect a factory of four stories and basement at Templeton-street; Carntyne Greyhound Racing Course—to erect a shelter for motor-cars at the enclosure at Carntyne; Corporation Electricity Department—to erect an electricity sub-station at Royal Exchange-square.

OBITUARY.

The death has occurred at Ellenton, Beveridge-road, Kirkcaldy, of Mr. James Scott, contractor.

The death has occurred at Little Inch, Balmerino, Fife, of Mr. William Don M'Millan, of James M'Millan & Sons, joiners, Milngavie.

The death has also occurred at Meadowbank, Elgin, of Mr. William Jamieson, builder, aged 73 years.

The death also occurred of Mr. John Carnegie, builder and contractor, of Dundee.

Proposed Memorial to John Rennie.

At a meeting of the Eastern District Committee of East Lothian County Council, held at Dunbar, there was under consideration a proposal for the erection of a memorial to John Rennie. The District Committee agreed to do nothing until definite proposals for the erection of the memorial were placed before them.

Manchester Town Hall and Library Extensions.

The Manchester City Council on February 2 by a substantial majority adopted the scheme for building a new Public Reference Library and extension of the Town Hall on the site bounded by Lloyd-street, Mount-street, Peter-street, and St. Peter's-square. Alderman Box, chairman of the Town Hall Extension Committee, in reply to a question as to when possession of the two sites — that for the Library and that for the Town Hall—would be available, said that as far as the Library was concerned possession could be taken next Christmas. With regard to the rest of the site leases had been issued, but they could all be terminated by a six months' notice from a June or March quarter day. No leases remained other than those given to tenants by the Corporation.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	,, ,,	1	0
Add for every additional depth of 6 ft.	,, ,,	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	,, ,,	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	38	0
Add if in underpinning in short lengths	,, ,,	7	0
Add if in floors 6 in. thick	,, ,,	3	3
Add if in beams	,, ,,	3	9
Add if aggregate 1 : 2 : 4	,, ,,	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	,, ,,	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	32	0	0
Add if in stocks	,,	7	10	0
Add if in Staffordshire blues	,,	22	0	0
Add if in Portland cement and sand	,,	1	10	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	,, ,,	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	,, ,,	0	0	10
Axed in stocks	,, ,,	0	1	9
Rubbed and gauged jointed in putty camber or segmental	,, ,,	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	,, ,,	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	,,	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	,, ,,	9	6
Three-quarter-inch on flats in two thicknesses	,, ,,	6	3
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	,, ,,	1	2

MASON.

		s.	d.
York stone templates fixed	per foot cube	13	0
York stone sills fixed	,, ,,	22	0
Bath stone and all labour fixed	,, ,,	10	6
Beer stone and all labour fixed	,, ,,	15	0
Portland stone fixed	,, ,,	20	0

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	,,	80	9
Do. 24 in. × 12 in. Do. Do.	,,	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	0
Do. joists	,, ,,	5	6
Do. roofs, floors and partitions	,, ,,	6	0
Do. trusses	,, ,,	8	6

		¾″	1″	1¼″	2″
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	,,	50	0
Do. to beams	per ft. sup.	1	0
Centre for arches	,,	1	6
Gutter boards and bearers	,,	1	0

FLOORING.

		¾″	1″	1¼″	1½″
Deal-edges shot	per sq.	—	44/6	53/-	60/6
Do. tongued and grooved	,,	—	49/-	57/6	65/-
Do. matchings	,,	45/-	51/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	,, ,,	2	1
Add for fitting and fixing	,,	0	3
Deal-cased frames with 1 in. inner and outer linings, 1¼ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights; average size	,, ,,	3	9

DOORS.

		1½″	1¾″	2″
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	,,	2/5	2/8	2/11
Two-panel moulded both sides	,,	2/8	2/11	3/2
Four-panel Do. Do.	,,	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1″	1¼″	1½″
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	,,	1/4	1/6	1/9
Add if cross-tongued	,,	2d.	2d.	2d.

STAIRCASES.

	1″	1¼″	1½″	2″	2½″
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail : average, 3 in. × 3 in.	,, ,,	6	0
Add if ramped	,, ,,	12	0
Add if wreathed	,, ,,	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	,,	19	0
Do. stanchions	,,	21	9
In roof work	,,	27	6

RAIN-WATER GOODS.

		3″	4″	5″	6″
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	,,	1/9	2/-	2/6	3/3
Rain-water pipes with ears	,,	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	,,	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	,,	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	43	0
Do. Do. in flats	,,	42	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	,, ,,	1	3
Copper nailing	,, ,,	0	4

		½″	¾″	1″	1½″	2″	4″
Drawn lead waste	per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service	,,	1/8	2/2	2/7	3/10	—	—
Do. soil	,,	—	—	—	—	—	6/9
Bends in lead pipe	each	—	—	—	—	3/3	8/2
Soldered stop ends	,,	1/2	1/8	2/1	2/10	3/6	—
Red lead joints	,,	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	,,	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	,,	—	—	—	14/7	19/6	—
Bib cocks and joints	,,	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	,,	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard. sup.	2	6
Do. Do. Sirapite	,, ,,	2	9
Do. Do. Keen's	,, ,,	4	0
Add saw lathing	,, ,,	1	7
Add metal lathing	,, ,,	2	6
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	,, ,,	2	2
Do. plain face	,, ,,	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	8½
26-oz. Do.	,, ,,	1	0
Obscured sheet	,, ,,	1	1
⅛-in. rolled plate	,, ,,	0	9
¼-in. rough rolled or cast plate	,, ,,	0	10½
¼-in. wired cast plate	,, ,,	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	,, ,,	0	7
Plain painting, 1 coat	,, ,,	0	9
Do. 2 coats	,, ,,	1	2
Do. 3 coats	,, ,,	1	9
Do. 4 coats	,, ,,	2	4
Graining	,, ,,	2	3
Varnishing twice	,, ,,	1	9
Sizing	,, ,,	0	3
Flatting	,, ,,	0	7
Enamel	,, ,,	1	1
Wax polishing	per foot sup.	0	6
French polishing	,, ,,	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1¼ should be added for Employers' Liability and National Health and Unemployments Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TRADE NEWS

Change of Name and Address.

We learn that Messrs. F. D. Huntington, Ltd., have changed their name to the Anglo-Scottish Construction Company, Limited, and that on February 20 they will move to new offices at 68, Victoria-street, S.W.1.

New Offices at Leek.

We learn that the stone carving to the front door of these offices—by Messrs. Longden & Venables—illustrated in *The Builder* for last week, was carried out by Messrs. John Daymond & Son, Ltd., 1-7, Edward-street, S.W.1. The columns and carved capitals of the building are in Portland stone, while the whole of the remainder of the building, including the feature in the large pediment, is in Hollington stone.

Timber Firm's New Branch, Bristol.

Successful and profitable building is largely a matter of ability to get the necessary supplies on the site at the right time. To meet such conditions, and because of their large and growing trade, Messrs. Bryce, White & Co., Ltd., the joinery and timber merchants, of Deseronto Wharf, Wharf-road, London, N.1, have opened a new branch at River Works, River-road, Bristol. Their increasing circle of customers in the West of England will, consequently, now be able to enjoy equal facilities with London customers and those on the south coast who are served by the Southampton branch of this firm. The Bristol branch is under experienced management, and has its own transport service to ensure the rapid delivery so essential.

"An Old Friend with a New Face."

Under this title, Messrs. Bell's Poilite and Everite Co., Ltd., of Southwark-street, S.E.1, have issued a booklet showing the application of the surface material, Decorated Poilite. This little publication shows, by means of attractive pastel sketches, the merits of the three types, A, B and C, of this new and attractive wall covering. Type A's appeal is that it is non-brittle, has a large variation of design, is available in large sheets, and has reflection values which are claimed to be unique in decorative media of equal hardness of surface. Its resistance to water is very high, and the decorative substances employed are of high quality. The material can be obtained for floor work in tile sizes up to 12 in. by 8 in., specially backed for fixing with cement and sand. Type B is a very hard artificial stone-faced slab, and is available in extremely attractive plain-colour and marble types. The surface is said to be harder than marble. It is supplied in 16 designs, and may be sawn or drilled without fracture. Its uses include facing or dressings of town houses, inside walls and floors of all public buildings, shop-fronts, floors and balustrading of garden terraces, etc. Type C is a very thin sheet, though of equal hardness, and is useful for factories where tiles or glazed bricks have been regarded as essential; for ceilings and for cladding the exterior of bungalows, etc. Applications should without fail be made for this booklet, which carries, in addition to the fullest information, colour cards showing some of the many designs of Type A.

Safeguarding Granite Industry.

The Board of Trade have appointed a committee consisting of Sir Harold Snagge (chairman), Mr. H. C. B. Mynors, and Mr. W. F. Purdy, to inquire into and report upon an application by the Aberdeen Granite Manufacturers' Association, on behalf of the whole industry, under the Safeguarding of Industries procedure, for an import duty on monumental and architectural granite, wholly or mainly manufactured. The secretary to the committee is Mr. H. W. Griffin, Board of Trade, Great George-street, London, S.W.1, to whom all communications relating to the work of the committee should be addressed.

NEW COMPANIES

The particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

H. W. PARKER & Co., LTD. (226,382). Registered December 7. 246 and 248, Brixton Hill, S.W. 2. Builders' merchants, builders and decorators, etc. Nominal capital, £15,000.

J. SANDERSON & Co. (NOTTINGHAM), LTD. (226,525). Registered December 12. Paint, varnish and wallpaper manufacturers. Nominal capital, £1,000.

A. J. BIRD, LTD. (226,374). Registered December 7. 6/7, Great Tower-street, E.C.3. Builders and shopfitters, etc. Nominal capital, £5,000.

EDWIN SCARBOROUGH, LTD. (226,419). Registered December 8. Sand merchant. Nominal capital, £7,000.

W. H. WEDLOCK, LTD. (226,403). Registered December 7. Crayford-way, Crayford, Kent. Builder, contractor and ironmonger, etc. Nominal capital, £8,000.

G. & J. GIBBS, LTD. (226,427). Registered December 8. 61, High-street, Hornsey, N.8. Builders, decorators and contractors, etc. Nominal capital, £1,000.

STEPHENS SILICA BRICK Co., LTD. (226,647). Registered December 16. Silica brick and cement. Kidwelly, Carmarthenshire. Nominal capital, £100,000.

ROSS SMITH & Co., LTD. (226,738). Registered December 20. Builders' merchants in all its branches. Nominal capital, £1,000.

J. M. CHAPPEL, LTD. (226,578). Registered December 14. "Fernlea," King's-avenue, Carshalton. Builders. Nominal capital, £500.

ESSEX CONCRETE SLAB Co., LTD. (226,637). Registered December 16. 4-6, Lower Queen's-road, Buckhurst. Nominal capital, £500.

J. H. WALKER & Co. (YORK), LTD. (226,700). Registered December 19. Wholesale builders' and plumbers' factors, coal, sand and gravel merchants. Nominal capital, £12,000.

MORTIMER VANE, LTD. (226,671). Registered December 17. 56, Surrey-road, Bournemouth. Public works contractor. Nominal capital, £10,000.

ST. LAWRENCE BRICK AND TILE WORKS, LTD. (226,675). Registered December 17. 18a, Thomas-street, York. Brick and Tile Works. Nominal capital, £3,000.

PENNANT VALLEY SLATE QUARRIES, LTD. (226,873). Registered December 24. 41, North John-street, Liverpool. To acquire the freehold slate quarry and land in Llanfihangel-in-Pennant, Carnarvonshire, etc. Nominal capital, £13,000.

R. G. LOMAS & SON, LTD. (226,673). Registered December 17. Stone and monumental masons, etc. Nominal capital, £500.

BUILDING MATERIAL Co. (KING'S LYNN), LTD. (226,865). Registered December 24. King's Lynn. Builders' general merchant. Nominal capital, £15,000.

B. E. A., LTD. (226,884). Registered December 24. To promote and assist the development of art in all its branches. Sir Alfred H. H. Matthews, Kt., 9, Alwyn-avenue, Chiswick, W. 4. Nominal capital, £500.

BRAILSFORD & WOOD, LTD. (226,854). Registered December 23. 12, Poole Hill, Bournemouth. Auctioneers, and architects, etc. Nominal capital, £2,000.

PEARSON & BLACKWELL (DONCASTER), LTD. (226,847). Registered December 23. Carr Grange Works, Hyde Park, Doncaster. Builders, etc. Nominal capital, £9,000.

A. D. JACKSON & SON (CONTRACTORS), LTD. (226,823). Registered December 23. Building contractors, etc. A. D. Jackson, 35, Old Southend-road, Southend-on-Sea. Nominal capital, £3,000.

COX & PAZZI, LTD. (226,987). Registered December 31. 1, Museum-street, W.C.1. Importers of tiles, hearths and baths, etc. Nominal capital, £1,000.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him next week not later than Tuesday evening.

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

Accrington.—Shops and offices in Blackburn-road, for the U.D.C. Mr. J. H. Hayhurst, architect, 32, Richmond-terrace, Blackburn:—

*W. J. Woof Cronshaw, Ltd., Blackburn.

Armthorpe.—New school for the senior department. Mr. H. Wormald, A.R.I.B.A., Education Architect, County Hall, Wakefield:—

*T. Jenkinson, Ltd., Doncaster.

Bedford.—Pair of houses in Chaucer-road, for Messrs. A. N. Diamond and W. H. Hills. Mr. W. E. G. Hull, architect, 12, Ashburnham-road:—

W. T. Revitt, Olney	£2,165 9
Warton & Goodship, Bedford	2,129 0
F. Corby	2,123 0
C. Negus, Ltd.	2,115 10
Seymour Bros. & Tookey, Stotfold	2,028 10
F. Ashwell, Kempston	1,855 7
*Purslow Bros., Clapham	1,762 0

Bedford.—Proposed porter's lodge at the Poor Law Institute, for the B.G. Mr. W. E. G. Hull, architect, 12, Ashburnham-road, Bedford:—

Jacobs & Burton	£830 9
Samuel Foster, Ltd.	811 0
Warton & Goodship	797 0
A. E. Parrott	797 0
J. Corby & Sons	769 0
A. Two	760 0
R. Jeakings	695 0
‡Purslow Bros.	633 15

Birkenhead.—12 houses on land fronting Fox-street, for the C.B. Mr. R. W. Johnston, Borough Engineer and Surveyor:—

*Selwood & Lloyd and Co., Ltd., Birkenhead.

Birkenhead.—Additions to the Electricity Offices of the C.B. Mr. R. W. Johnston, Borough Engineer and Surveyor:—

*Stott & Ward, Birkenhead.

Blackpool.—8 shops and bank premises at Cleveleys-avenue and Victoria-road, Cleveleys. Messrs. Lumb & Walton, architects, 19, Clifton-street:—

*Chadwick Bros., Blackpool.

Bolton.—8 houses on land fronting Tintern-avenue, Bolton, for the Corporation:—

J. W. Lee, Ltd., Chorley.

Bo'ness.—10 houses at Richmond, for the T.C. Mr. W. Beattie, Director of Housing, Burgh-chambers:—

Digger and brick work—
*J. Hardie & Son, Bo'ness £1,218 16 2
Joiner work—
*Robert Hastie Bennie, Linlithgow 1,177 9 1
Plumber work—
*J. Robertson & Son, Bo'ness. ... 592 11 0
Slater and roughcast work—
*Jas. Begg & Son, Bo'ness 481 2 8
Plaster and cement work—
*Jas. Begg & Son, Bo'ness 411 11 8
Electric lighting work—
*Burgh of Bo'ness Electricity Department, Bo'ness 68 5 10
Glazier work—
*Daniel O'May, Falkirk 26 15 4
Painter work—
*McInnes & Laing, Bo'ness 113 6 9

Brighton.—Alterations and additions to club house for East Brighton Golf Club. Messrs. Penty & Farrar, architects, Brunswick-square, Hove:—

*Ringmer Building Works.

Butterknowle.—Enlargement of Council school, for the Durham C.C.:—

*H. Eisel, Ltd., Coundon £3,244

Croydon.—New lock-up garages, workshop and petrol service station in Shirley-road. Messrs. Paish, Tyler & Crump, architects, Addiscombe:—

*B. H. Roper, Ltd., Addiscombe.

Darenth.—Alterations to dayrooms, at the Training Colony, for the M.A.B.:—

G. H. Dibblin, Dartford	£548 0 0
P. Jones & Co.	508 16 2
D. C. Bowyer	483 5 0
G. Coe	437 0 0
J. Hocking & Co.	406 9 6
E. Proctor & Sons	400 0 0
A. S. Wells	372 0 0
‡Carrington & Co., Ltd.	325 0 0

(All of London.)

Devonport.—134 houses and the carrying out of streets and sewer works in connection therewith at St. Budeaux, near Plymouth, for the Devonport Dockyard Employees' Housing Association. Mr. H. J. Hammick, L.R.I.B.A., architect, 63, Old Town-street, Plymouth, Local Surveyor to the Housing Association, in consultation with the Rt. Hon. Sir J. Tudor Walters, F.S.I., 6, Hobart-place, Eaton-square, S.W.1:—

*Thos. Barker & Sons, Loughborough.

Ealing.—Proposed rebuilding of "The Feathers Restaurant," The Broadway, Ealing, W.5. Messrs. F. J. Eedle & Meyers, architects, 8, Railway-approach, London Bridge, S.E.1. Quantities by Mr. W. Lane, 8, Railway-approach, London Bridge, S.E.1:—

Higgs & Hill, Ltd.	£38,420
G. Challis	37,500
J. Dorey & Co.	37,450
J. Carmichael, Ltd.	37,403
Sims & Russell	37,300
H. V. Clogg	37,000
Hall, Beddall & Co., Ltd.	36,975
T. Adamson & Son	36,513
H. Knight & Son	36,158
Courtney & Fairbairn, Ltd.	36,136
W. J. Dickens	35,900
J. Parsons	35,547

(All of London.)

Hastings. — New orthopædic and isolation buildings, children's ward, sunlight corridor and balconies, and at Royal East Sussex Hospital, Hastings. Mr. Percy H. Oxley, F.I.A.A., architect:—

*Peerless Dennis & Co., Ltd., Eastbourne £16,777

Heaton (Bradford).—Sports pavilion for the Heaton Tennis Club, Ltd. Mr. Wm. Illingworth, architect:—

Brickwork—
*R. Naylor & Sons.
Joiners—
*Gamble & Shapcott.

Hounslow.—For (a) 6 flats in Station-road and (b) hall in Grove-road:—

*F. J. Pateman, Hounslow.

Kingston-on-Thames.—Rebuilding of the "King's Arms" public house in Clarence-street for Messrs. Hodgson's Kingston Brewery Co., Ltd. Messrs. Yetts, Sturdy & Usher, architects, 34, Gordon-square, W.C.1:—

*W. H. Gaze & Sons, Ltd. Kingston-on-Thames.

Leamington Spa.—62 houses on the Rushmore estate, for the Corporation:—

*Bambury & Snowden, Leicester.

Leeds.—School on the Meanwood housing estate, for the E.C. Mr. Broadbent, architect:—

*W. N. Coates & Son.
(Subject to the approval of M.H.)

Leigh.—40 non-parlour houses on the housing site at Astley, for the U.D.C.:—

*G. Moss & Sons, Ltd., Leigh ..... £349 each

London.—Rebuilding of Guildhall Offices, etc., fronting Church Alley. "A" tender is for the main structure, and "B" for the sugested alteration of the existing staircase to the Valuation and Rating Department, for the City Corporation:—

	"A"	"B"
Mowlem & Co., Ltd.	£39,600	£8,750
Trollope & Colls, Ltd.	39,180	7,280
Dove Bros., Ltd.	38,925	6,860
J. Greenwood, Ltd.	38,400	7,290
Holloway Bros. (London), Ltd.	38,482	7,180
Fairhead & Sons, Ltd.	38,421	7,197
N. Lidstone & Son	38,352	6,947
Lawrence & Son, Ltd.	37,998	7,172
Bovis, Ltd.	37,500	7,487
Wallis & Sons, Ltd.	37,806	6,980
L. & W. Whitehead, Ltd.	37,452	6,902
‡Rice & Son	36,501	7,092

London.—Erection of new theatre, lounge and restaurant, work hall, etc., seating 2,700 persons, at Streatham Hill, S.W. Messrs. Sprague & Barton, architects, 60, Haymarket, S.W.1:—

J. Garrett & Son	£102,655
Higgs & Hill, Ltd.	91,191
T. H. Kingerlie & Son	90,617
F. G. Minter, Ltd.	90,600
Kirk & Kirk	90,220
Griggs & Son	89,747
Patman & Fotheringham, Ltd.	89,451
F. D. Huntington, Ltd.	89,273
L. & W. Whitehead, Ltd.	88,837
Humphreys, Ltd.	88,400
Dyke & Knox	87,892
Bovis, Ltd.	87,870
*Rice & Son	87,228
Pitcher Construction Co., Ltd.	87,222

London.—Corridor screens to pavilion 18, at the Northern Hospital, for the M.A.B.:—

C. H. Boyd & Son, Ltd.	£294 0 0
A. J. Willson & Sons	269 16 0
Hood & Saddington	265 7 6
J. Darch, Ltd.	224 0 0
C. J. Newby & Bros.	219 0 0
J. Hocking & Co.	219 0 0
White & Johnson	210 0 0
P. Jones & Co.	198 15 10
R. Dixon & Sons	196 0 0
Canonbury Construction Co., Ltd.,	184 0 0
‡Sayce & Bransby	143 10 0

(All of London.)

London.—Provision and fixing of heating apparatus at Highbury-hill High School, for the L.C.C.:—

The Fretwell Heating Co.	£2,329 0 0
W. G. Cannon & Sons, Ltd.	2,134 0 0
Saunders & Taylor, Ltd.	2,110 0 0
W. Freer	2,078 0 0
Thames Bank Iron Co., Ltd.	2,011 0 0
Clark, Hunt & Co., Ltd.	1,999 0 0
Wm. Griffiths, Sons & Cromwell, Ltd., Liverpool	1,981 10 0
*J. T. Meredith & Co., Ltd.	1,950 0 0

(All of London.)

London.—Elementary school at Ealdham-square, Eltham, for the L.C.C., have been received:—

H. Kent	£31,608 0 0
Geo. Parker & Sons, Ltd.	31,297 0 0
Griggs & Son	31,157 0 0
J. & C. Bowyer, Ltd.	30,929 0 0
W. H. Gaze & Sons, Ltd.	30,473 0 0
Thomas & Edge	30,455 0 0
T. D. Leng	30,441 0 0
Holliday & Greenwood, Ltd.	29,690 0 0
Geo. E. Everitt & Sons, Ltd.	29,461 0 0
Jas. Smith & Sons, Ltd.	29,349 0 0
Wm. Akers & Co., Ltd.	29,338 0 0
Patman & Fotheringham, Ltd.	29,329 0 0
†Higgs & Hill, Ltd.	29,240 0 0
Galbraith Bros., Ltd.	28,975 0 0
J. W. Ellingham, Ltd., Dartford	28,960 0 0
W. Nicholson & Sons (Leeds), Ltd.	28,890 0 0
J. Garrett & Son	28,495 0 0
G. E. Wallis & Sons, Ltd., Maidstone	28,374 0 0
C. P. Roberts & Co., Ltd.	28,300 0 0
Fred & T. Thorne	28,197 0 0
Leslie & Co., Ltd.	28,180 0 0
John Laing & Sons, Ltd.	28,062 10 6
*F. R. Hipperson	27,958 10 11
Architect's estimate	28,358 0 0

(All of London.)

London.—Adaptation of Turin-street L.C.C. school, Bethnal Green, for the L.C.C.:—

Griggs & Sons	£8,487 0 0
Stevens & Sons	7,776 0 0
Fred & T. Thorne	7,450 0 0
Patman & Fotheringham, Ltd.	7,421 0 0
John Willmott & Sons (Hornsey), Ltd.	7,160 0 0
Albert Monk	7,035 0 0
J. & C. Bowyer, Ltd.	6,832 0 0
Allen Fairhead & Sons, Ltd.	6,820 0 0
Marrable Brothers	6,700 0 0
W. J. Maddison, Ltd.	6,699 0 0
Rowley Brothers, Ltd.	6,695 0 0
George Keetch & Sons	6,679 0 0
W. M. Brand	6,625 0 0
Wm. Shurmur & Sons, Ltd.	6,590 0 0
L. H. & R. Roberts	6,534 0 0
R. Woollaston & Co.	6,325 11 3
C. P. Roberts & Co., Ltd.	6,200 0 0
*H. Lacey & Sons (Luton)	6,096 0 0
Architect's estimate	6,054 0 0

(All of London.)

London.—Deepening the wells at Colney Hatch Mental Hospital, for the L.C.C.:—

Thomas Tilley & Son, Ltd. London	£4,180 0
Le Grand, Sutcliff & Gell, Ltd., Hayes	3,681 5
*A. C. Potter & Co., Grantham	2,699 0

SLIDING DOOR GEAR

FOR FACTORIES, GARAGES, SCHOOLS, ETC.

Nine essential features of "Henderson" Door Gear

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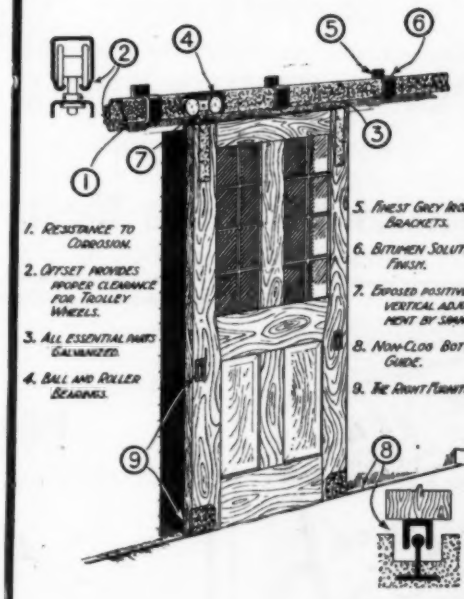
1. RESISTANCE TO CORROSION.
2. OFFSET PROVIDES PROPER CLEARANCE FOR TROLLEY WHEELS.
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4. BALL AND ROLLER BEARINGS.
5. FINEST GREY IRON BRACKETS.
6. BITUMEN SOLUTION FINISH.
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9. THE RIGHT FURNITURE.

WRITE FOR BOUND CATALOGUE B26 TO

P. C. HENDERSON, LIMITED.

BARKING, ESSEX. PHONE: GRANGEWOOD 0242

London.—Class shelters at the Springwell House school, Battersea, for the L.C.C.:—

W. H. Gaze & Sons, Ltd.	£1,434
W. Hammond, Ltd.	1,396
Holliday & Greenwood	1,344
J. & C. Bowyer, Ltd.	1,325
Humphreys, Ltd.	1,295
T. Brown & Sons	1,288
A. E. Symes, Ltd.	1,277
Triggs & Co.	1,274
Wm. Harbrow, Ltd.	1,221
Jas. Carmichael, Ltd.	1,148
*J. Garrett & Son, Ltd.	1,129

(All of London.)

London.—Steelwork and glazing of a verandah at the Claybury Mental Hospital, for the L.C.C.:—

*W. H. Heywood & Co., Ltd., Huddersfield	£150 6 8

London.—Alterations to the Sales Room and Cashier's Room Counters in the Electricity Demonstration Hall, for the Hackney B.C.:—

F. Sage & Co., Ltd.	£577 10 0	597 10 0
E. Pollard & Co., Ltd.	500 0 0	540 0 0
E. A. Roome & Co., Ltd.	482 0 0	522 0 0
H. Darby & Son	413 0 5	463 0 5
W. Silk & Son, Ltd.	*359 0 0	399 0 0

Loughborough.—Erection of a hostel at the College, for the Leicestershire E.C. Mr. E. G. Fowler, architect and surveyor:—

J. Chapman & Sons, Ltd., Leicester	£16,300
J. C. Kellett & Son, Leicester	16,260
Walter Potter, Narborough	16,200
William Corah & Son, Ltd., Loughborough	16,000
P. Rourke, Lutterworth	15,975
Chitham & Co., Ltd., Leicester	15,822
Thomas Barker & Sons, Loughborough	15,800
A. Faulks, Loughborough	15,548
*William Moss & Sons, Ltd., Loughborough	15,442

Northwich.—Laying of approximately 28 miles of cast-iron mains, 8-in., 6-in., 5-in., 4-in., and 3-in. diameter, and 13 miles of galvanised water tubes from 2-in. to ¾-in. diameter, and other incidental works, in connection with the water schemes, for the R.D.C. Mr. J. Birtwistle, engineer and surveyor, Winnington-street:—

Squires & Sons, Selby	£11,250 1 2
Wm. Mulcaster, Crewe	8,909 16 8
L. D. Sunderland, Bradford	23,732 15 9
Andrew Blair Lyell & Co., Birmingham	15,372 2 4
S. Hutton & Co., Northwich	8,853 8 6
East Kent Gas Co., Kent	16,835 17 6
Bentley & Henry, Bradford	12,674 10 3
Wm. Jackson, Edinburgh	16,035 0 10
Norwest Construction Co., Liverpool	11,669 11 0
Hudsons, Nottingham	12,372 8 11
W. H. Worthington, Ltd., Manchester	24,216 16 7
Middleton & Keene, Hants	11,190 7 1
Martin & Element, Smethwick	14,830 5 7
Crawford Bros., Cheshire	16,637 13 5
W. P. Taylor, Stoke-on-Trent	13,564 2 4
W. Snape & Sons, Eccles	17,195 4 9
Wm. Brigg, Bradford	13,450 0 0
L. J. Speight, London	17,969 16 4
W. H. Rogers, Staffs	14,260 0 0
Hall & Busfield, Leeds	10,350 3 4
Wyatt Bros., Salop	13,943 15 0
Thomas Coates, Lancs.	23,624 10 1
Williams, Tarr, Warrington	15,822 0 0
J. T. Omalia, Lancs.	15,478 0 0
W. R. Dean, Knutsford	10,208 16 8
Wm. Elliot, Bishop Auckland	10,245 12 0
V. T. Barnes & Sons, Lincs.	19,284 5 0
Edney & Co., Hants	32,664 11 11

Penarth.—Repairs to roof, etc., at the Market, for the U.D.C.:—

*J. Kitchen £610

Pickering.—Building for shops and offices for the Pickering & District Co-operative Society, Ltd.:—

*J. Jarem & Sons, Scarborough.

Ryton.—New schools, for the Durham C.C.:—

*J. Wilkinson, Newcastle £14,996

Salford.—Extensions to the mills at Salford, for Messrs. John Jackson & Son, Ltd.:—

*W. Gornall & Son, Ltd., Salford.
Steelwork—
*Banister, Walton & Co., Ltd., Manchester.

Seaham Harbour.—New school, for the Durham C.C.:

*J. Huntley & Son, Ltd., Sunderland £11,413

South Kirby.—Extensions to the Old School, for the West Riding E.C. Mr. H. Wormald, architect:—

*F. Tree.

Sowerby.—50 houses on Beechwood housing site, for the U.D.C. J. Eastwood, Surveyor:—

Masons and bricklayers—
*Pickles Bros., Halifax.
Carpenters and joiners—
*E. Johnson, Halifax.
Plumbers and glaziers—
*J. S. Akroyd, Halifax.
Slaters and plasterers—
*H. Castle & Son, Ltd., Brighouse.
Painters and decorators—
*E. Eccles, Halifax.
Electricians—
*J. Harrison & Co., Halifax.

Spalding.—20 parlour type and 32 non-parlour type houses, for the U.D.C. Mr. A. E. Palmer, architect, Fulney Bridge :—

	Non-Parlour. Block of 4. £ s. d.	Block of 3. £ s. d.	Parlour. Block of 5. £ s. d.
J. H. Johnson & Son, Wisbech—	1,361 17 0	1,036 4 6	1,761 5 0
G. Hotter & Son, Ltd., Billingborough—	1,393 16 0	1,045 7 0	1,921 0 0
Spalding Contracting Co., Ltd., Spalding—	1,315 8 10	1,004 11 1	1,887 3 0
Campion & Penney, Ltd., Holbeach—	1,266 10 0	950 10 0	1,987 10 0
L. P. Longland, Bourne—	2,024 0 0	——	——
C. H. Cruise, Holbeach—	1,400 0 0	1,024 0 0	1,950 0 0
A. K. Stott, Spalding—	1,398 0 0	1,048 10 0	1,917 10 0
C. P. Unwin, Sheffield—	1,360 0 0	1,029 0 0	1,860 0 0
T. A. Scotney, Bourne—	1,479 0 0	1,136 0 0	1,915 0 0
J. R. Baker, Moulton Chapel—	1,485 0 0	1,125 0 0	1,899 0 0
*J. Arch, Spalding—	1,252 0 0	941 0 0	1,679 0 0
John Cracknell, Ltd., Peterborough—	1,444 0 0	1,088 0 0	1,958 0 0
Ingram Bros., Louth—	——	——	2,280 0 0
Wallhead Bros., Ruskington—	1,319 19 0	1,009 19 0	1,809 19 0
A. Ingram, Louth—	1,592 0 0	1,188 0 0	——
J. W. Barber, Peterborough—	1,270 0 0	952 10 0	1,687 10 0
J. H. Thompson & Sons, Ltd., Grimsby—	1,440 0 0	1,089 0 0	1,935 0 0

(Accepted subject to approval of M.H.)

Sutton-in-Ashfield.—For 66 non-parlour type houses on the Alfreton-road, for the U.D.C. Borough Surveyor :—

*Swift Bros. & Haslam, Ltd., Doncaster.

Templehurst.—New school buildings for the West Riding C.C. :—

*F. Tree.

Todmorden.—Installation of electric lighting at the Union Offices, Hall-street, for the B.G. :—

*Gatley & Co., Todmorden.

West Herrington.—Enlargement of the Council school, for the Durham C.C. :—

*W. Hall, Ltd., Gateshead £939

Wigan.—Installation of the electric light and the inside decoration of the council offices and 20 houses in Beaconsfield-lane, Billinge. Mr. A. Darlington, surveyor, Billinge, near Wigan :—

For lighting of offices and houses—

*W. Gaskell & Son, Wigan.

For decorating the offices—

*James Ashurst, Orrel, near Wigan.

For decorating the houses—

*J. W. Marsh, Upholland.

Willenhall.—120 non-parlour type houses, on the Albion-road site, for the U.D.C. :—

*A. M. Griffiths & Son, Ltd., Wolverhampton.

Wimbledon.—Five houses on the Birkbeck-road site for the B.C. :—

*G. T. Crouch, Wimbledon £2,935

(Subject to sanction of the M.H.)

Windsor.—Alterations and additions to new branch premises, Thames-street, for Messrs. Lloyds Bank, Ltd. Messrs. Gibson & Gordon, architects, 5, Old Bond-street, W.1. :—

*G. S. Lewis & Brothers, Reading.

York.—50 houses on the Tang Hall estate, for the City Council :—

*J. J. Paget, Washington £18,530

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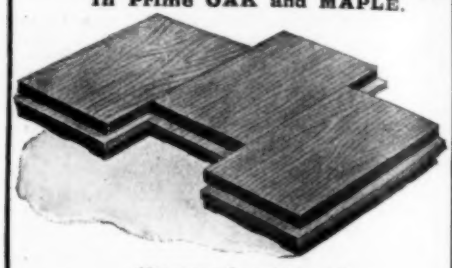

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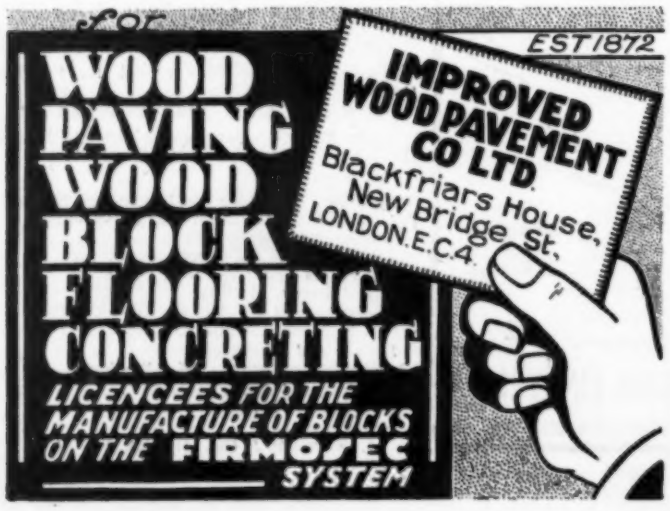

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